

Alberta Environment and Parks
Environmental Management System

Laboratory/ Operator Data File Formats

Updates of 2003 document,
Addition of PSV format (2016)
And Q record (2018)

Alberta Environment and Parks, Government of Alberta
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Alberta Environment and Parks Environmental Management System
Laboratory/Operator Data File Formats

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This document describes the electronic data file format to be used to submit electronic sample/measurement data to Alberta Environment and Parks (AEP). **Electronic data is part of the updated Lab Data Quality Assurance policy. Digitized paper, word documents or pdfs, do not constitute electronic data.**

The contents of the file types are:

1. LAB-AEP Laboratories contracted to analyze samples of water and biological samples for AEP will also submit these results to AEP in one of the electronic data formats described in this document. In this document, rules pertaining to these Lab files are identified as **"Lab-AEP" rules**.

2. LAB-OPR-M (formerly Lab-Opr) Laboratories may analyze samples provided to them by Operators of Drinking Water facilities, and then submit the data to AEP on behalf of the Operator. In this document, rules pertaining to these Lab-Operator files are identified as **"Lab-Opr-M" rules**. Bacteriological data follows these rules.

4. OPR-DWQ (formerly DWQ) Operators of Drinking Water facilities that are regulated under the Alberta Environmental Protection and Enhancement Act (EPEA) may electronically submit monitoring data (as required in their EPEA approval) to Alberta Environment (AEP) by using one of the file formats described in this document. In this document, rules pertaining to these Operator-submitted files are identified as **"OPR-DWQ" Drinking Water Quality rules**.

There will be/ is now a choice of file types:

Original: The data file is to be an ASCII text format, compatible with the MS-WINDOWS (95, 98, CE, XP, NT, 2000) operating systems. Each line of text is to be terminated with a carriage-return / line feed combination (DOS text line terminator), or terminated with a line feed character (UNIX text line terminator). Each text line represents one record of data.

PSV: This file is a PIPE delimited series of fields that must be in the correct order and any non-valued fields must have their PIPEs but be left blank. If viewing as an Excel type spreadsheet, the fields as Columns are listed.

There are a number of different types of records in these file formats, identified by the letter in the first column of the record or by its tag. **The record types are summarized below.**

N/A = Not Applicable; R = Required, O = Optional

Record Type	PSV	Record Name	Description	1. LAB- AEP	2. LAB- OPR-M	4. OPR- DWQ			Comments
F	F	File Header Record	Contains submitter information.	N/A	N/A	R			
T	T	Station Status Record	Contains station status information	N/A	N/A	O			
S	S	Sample Header Record	Contains sample information.	R	R	R			
C	C	Sample Header Comment Record	Contains a text comment for a sample.	R	R	R			
M	M	Measurement Detail Record	Contains details about measurements made on a sample.	R	R	R			
K	K	Measurement Detail Comment Record	Contains a text comment for a measurement or a bio-measurement.	O	O	O			
B	B	Bio-measurement Detail Record	Contains details about bio-measurements made on a sample	O	N/A	N/A			
Q	Q	Qualifier Code Comment	Contains a text comment for a qualifier code in a measurement or bio-measurement record	O	O	O			
#	#	Comment string	General purpose comment identifier. Used for comments within the ASCII data file, for the submitter's internal purposes. These comments are ignored by the processes that validate and load the data files.	O	O	O			

File Extensions and Alternate Formats

Any NON-Fixed-Format files must use the same extensions as the fixed formats BUT with an additional extension to signify the file type, as shown below.

Extension Summary (Lab is a three digit code from AEP)	1. LAB-AEP	2. LAB-OPR-M		4. OPR-DWQ	
Fixed Format Text	.lab	.Mlab		.999	
PSV	.lab.psv	.Mlab.psv		.999.psv	

File naming

1. **Lab-AEP** files (i.e. files submitted by AEP-contracted labs) must adhere to the following naming conventions:
 - a. The filename must be either the data file sequence number for the given lab or the work order number (if linked directly to invoicing).
 - b. The filename must not be greater than **25 characters (alpha-numeric) in total** (including extension).
 - c. **The filename is max 20 characters before the dot extension**
 - d. The filename extension must be the 3-digit lab code assigned to the lab.
 - e. Each file should only contain analyses for one agency (e.g. 211: surface water, 202: municipal inspections, etc.)

For example, the first Lab-AEP file from lab 27 could be named: Workorder001.027. The second file would be named Workorder002.027, and so on.

It is the responsibility of the labs to maintain their file naming sequence. If a file is sent with a file name that has already been used, the file will be rejected.

2. **Lab-Opr-M** files (i.e. files submitted by labs on behalf of Drinking Water facility operators) must adhere to the following naming conventions:
 - a. The filename could contain the **authorization ID, followed by either the data file sequence number for the given lab or the work order number (if linked directly to invoicing), as well as a version number**
 - b. The filename must not be greater than **25 characters (alpha-numeric) in total** (including extension).
 - c. **The filename is max 20 characters before the dot extension (However, Bacteriological .M069 files are still 8 characters before the extension)**
 - d. The filename extension must be an uppercase "M" followed by the 3-digit lab code assigned to the lab.
 - e. **Each file must only contain analyses for one municipality/approval.**

For example, the first Lab-Opr-M file from lab 27 could be named: **12345678-WO001-01.M027**. The second file, for the same authorization ID, would be named **12345678-WO002-01.M027**, and so on.

It is the responsibility of the labs to maintain their file naming sequence. If a file is sent with a filename that has already been used, the file will be rejected. If a file is being resent, then the version of the filename must be changed.

4. **OPR-DWQ** Files submitted by Drinking Water facility operators must adhere to the following naming conventions:

The filename must be in the format

AAAAAAAA-YYYYMMDD-S-N.LLL

Where:

- AAAAAAAAA is the operator's EPEA Approval Id, left padded with zeroes, excluding the renewal and amendment suffixes
- YYYYMMDD is the date the file is sent, in numeric format (4-digit year, 2-digit month and 2-digit day)
- S is an Alphabetic sequence to differentiate files of different content sent on the same day (i.e. if files having different content were sent on the same day, the first one should have an "A", the second one a "B", etc.).
- N is a Numeric sequence to differentiate the initial version of a file from subsequent replacement file(s) having largely the same data. (i.e. the first file sent would have a "1". If a replacement file were sent on the same day, e.g. if the first file is rejected because of format/content errors, the replacement file would have a "2", etc.)
- LLL is the numeric "Lab Code" assigned to the submitter by AEP. For Drinking Water, this is 999.

Note: the first four filename components are separated by dashes, and a period precedes the Lab Code.

Every filename must be exactly 25 characters long, including the period and three-digit filename extension.

For example, the operator for AEPA approval 1234, has been assigned Lab Code 999. The first file sent on May 1, 2002, by this operator would be named:

00001234-20020501-A-1.999

If the operator chose to submit a separate file on the same day, for some additional monitoring data (say, for some different monitoring locations), the second file would be named:

00001234-20020501-B-1.999

If it then became necessary to re-submit the first file on the same day, the replacement file would be named:

00001234-20020501-A-2.999

It is the responsibility of the submitter to manage their filenames, using the above approach, to ensure that every file sent to AEP has a unique name. If a file is sent with a filename that has already been used, the file will be rejected.

Record Format Type	Rules
For ALL Fixed Format Records	<p>All fields are 'fixed format'.</p> <ul style="list-style-type: none"> • If optional data are not included, the appropriate character positions must be filled with spaces. • Character fields that are not completely filled must be padded on the right with spaces. (text____) • Numeric fields that are not completely filled must be padded on the left with spaces. (____number) • Justifications/Spacing for character/text or numeric, must remain constant throughout the file • Do not use Tabs for any spacing.
For ALL PSV Format Records	<p>In the PSV format, the fields are separated by a pipe character.</p> <ul style="list-style-type: none"> • If optional data are not included, the pipe character must still separate the blank/empty fields. • There is NO pipe character at the end of the record. • When opening a PSV file in Excel, columns are assigned. Shown in the record details below are the "field to XLS column header" relationships.
For ALL Records	<ul style="list-style-type: none"> • All dates must be in Mountain Standard Time (MST). • The "Required /Optional" columns indicate whether each field is Required (R) or O (Optional) for the three types of files: "Lab-AEP", "Lab-Opr-M", and "Opr-DWQ" . • An "n/a" (not applicable) in the Required / Optional column indicates that the field should be left blank as it is ignored for that type of file.

Record Name **File Header (F) Record**

Description This record type contains information about the file and the file submitter.

Notes

- The file cannot contain more than one File Header Record.
- The File Header Record should appear before any other records in the file, other than file comment strings (record type #).
- This record type is required for Opr- DWQ files ,
- And not applicable for Lab-AEP, Lab-Opr-M files.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Leng.	Start Pos.	End Pos.	PSV in XLS	
			1. Lab-AEP	2. Lab-Opr- M		4. Opr-DWQ							
1	Record Type	F	n/a	n/a		R		Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	n/a	n/a		R		Num	999999	6	2	7	B
3	Approval Id	EPEA Approval Id, issued by AEP. **	n/a	n/a		R		Num	99999999	8	8	15	C
4	Sent Date	The date the file was sent to AEP.	n/a	n/a		R		Num	YYYYMMDD	8	16	23	D
5	Email Address	Email address to be used for notifications about the file processing success / failure.	n/a	n/a		R		Char	X(50)	50	24	73	E
6	Data Year/Month	The year or year and month to which the data refers (i.e. the time period in which the samples were taken.)	n/a	n/a		R		Num	YYYYMM (The MM portion may be left blank for annual reporting.)	6	74	79	F
7	Filename	The name of the submitted file.	n/a	n/a		R		Char	X(25)	25	80	104	G
8	Notes / Comments	Notes and/or comments for the submission	n/a	n/a		O		Char	X(2000) (Maximum size is 2000 characters. This field is terminated by the line feed character.)	0 to 2000	105	104 to 2104	H

** Must be a valid AEP code.

Record Name **Station Status (T) Record**

Description This record type contains information about changes in the status of a station (i.e. monitoring location).

- Notes
- Placement of this record(s) is typically after the F record.
 - Multiple T records are possible.
 - This record type is optional for Opr- DWQ files ,
 - and not applicable for Lab-AEP , Lab-Opr-M files.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Leng.	Start Pos.	End Pos.	PSV in XLS	
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ							
1	Record Type	T	n/a	n/a		R		Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	n/a	n/a		R		Num	999999	6	2	7	B
3	Station No.	Station Number issued by AEP to identify the monitoring location. **	n/a	n/a		R		Char	X(10)	10	8	17	C
4	Effective Date	The effective date for the station status.	n/a	n/a		R		Char	YYYYMMDD HHMISS	14	18	31	D
5	Status Indicator	The station status indicator.**	n/a	n/a		R		Char	X(3)	3	32	34	E
6	Status Comment	A comment about the station status.	n/a	n/a		O		Char	X(255) (Maximum size is 255 characters. This field is terminated by the line feed character.)	0 to 255	35	34 to 289	F

** Must be a valid AEP code.

Record Name **Sample Header (S) Record**
 Description This record type contains information about a sample.
 Notes This record type is required all for file formats:

- Lab-AEP, Lab-Opr-M, Opr- DWQ files.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Leng	Start Pos.	End Pos.	PSV in XLS
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ						
1	Record Type	S	R	R		R	Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	R	R		R	Num	999999	6	2	7	B
3	Sample No.	Sample number issued by AEP	O *	n/a		n/a	Char	X(10)	10	8	17	C
4	Sample Date	Date sample was taken from station	R	R		R	Date	YYYYMMD DHHMISS	14	18	31	D
5	Sample End Date	Date sample was completed from station	O *	O		O	Date	YYYYMMD DHHMISS	14	32	45	E
6	Sent Date	Date sample was sent to the lab	O *	n/a		n/a	Date	YYYYMMD DHHMISS	14	46	59	F
7	Received Date	Date sample was received by the lab	R	R		n/a	Date	YYYYMMD DHHMISS	14	60	73	G
8	Returned Date	Date sample data was returned to AEP	O	n/a		n/a	Date	YYYYMMD DHHMISS	14	74	87	H
9	Lab Code	ID code of lab where measurements are done**	R	R		R	Char	X(3)	3	88	90	I
10	Lab Sample Number	Sample number used internally by the lab	R	R		R	Char	X(20)	20	91	110	J
11	Station No.	Station number, issued by AEP, where sample was obtained**	O *	R		R	Char	X(10)	10	111	120	K
12	Project No.	Project number sample was collected for**	R	n/a		n/a	Char	X(6)	6	121	126	L
13	Agency Code	Code to identify agency responsible for sample**	R	n/a		n/a	Char	X(4)	4	127	130	M
14	Sample Matrix Code	Code to define sample matrix **	O *	R		R	Char	X(2)	2	131	132	N
15	Number Caught	Number of discrete biota caught in a single sample	O *	n/a		n/a	Num	99999	5	133	137	O
16	Number Kept	Number of biota kept from a single sample	O *	n/a		n/a	Num	99999	5	138	142	P
17	Sample Type Code	Code which identifies the type of sample**	O *	R		R	Char	X(2)	2	143	144	Q
18	Collection Code	Code which identifies how sample was collected**	O *	n/a		n/a	Char	X(3)	3	145	147	R
19	Group Sample No	Number for samples that are linked to other samples	O *	n/a		n/a	Char	X(10)	10	148	157	S
20	Sample Cross Ref.	Cross reference for agency or project	O *	R #		n/a	Char	X(20)	20	158	177	T
21	Sample Depth	Depth sample was taken at	O *	n/a		n/a	Num	99999.9	7	178	184	U
22	Sampler ID 1	First ID number of person who collected the sample	O *	n/a		n/a	Num	99999999	8	185	192	V
23	Sampler ID 2	Second ID number of person who collected sample	O *	n/a		n/a	Num	99999999	8	193	200	W
24	Sampler ID 3	Third ID number of person who collected sample	O *	n/a		n/a	Num	99999999	8	201	208	X
25	Sample Frequency Code	Code to indicate the frequency of the sampling**	n/a	R		R	Char	X(5)	5	209	213	Y
26	Reading Type	Code to indicate the reading type**	n/a	n/a		O	Char	X(3)	3	214	216	Z

* Required if supplied by Alberta Environment, blank otherwise.

** If populated, must be a valid AEP code.

For Labs, if the data is associated with a particular approval (e.g. for bacteriological data), this field will contain the approval id associated with the measurement.

Record Name

Sample Header (C) Comment

Description

This record contains comments pertaining to a sample.

Notes

- This record type is required for lab file formats: Lab-AEP, Lab-Opr-M,
- And optional for Operator file formats: Opr- DWQ files. It is recommended that Sample comments are used.
- For labs, this record contains the written site description from the chemical analysis request sheet. Additional lab comments regarding the sample can be appended to the site description by the lab.
- Only one comment record is allowed for each sample record.
- The lab sample number field in each C record must relate to a corresponding **S** record in the data file with the same lab sample number.

Field No.	Field Name	Description	Required / Optional					Data Type	Data Format	Data Leng.	Start Pos.	End Pos.	PSV in XLS
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ							
1	Record Type	C	R	R		R		Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	R	R		R		Num	999999	6	2	7	B
3	Lab Sample Number	Sample number used internally by the lab	R	R		R		Char	X(20)	20	8	27	C
4	Comment	Text comment describing sample	R	R		R		Char	X(2000) (Maximum size is 2000 characters. This field is terminated by the line feed character.)	0 to 2000	28	27 to 2027	D

Record Name **Measurement Detail (M or B) Record**

Description This record type contains details of measurements or bio-measurements pertaining to a sample.

Notes

- The M record type is required all for file formats: Lab-AEP, Lab-Opr-M, Opr- DWQ files.
- Measurement Record type B (biological/biota) is optional for Lab-AEP files and not applicable for , Lab-Opr-M, Opr- DWQ files.
- Field 6 relates only to record type B.
- The lab sample number field in each M or B record must relate to a corresponding **S** record in the data file with the same lab sample number.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Leng.	Start Pos.	End Pos.	PSV In XLS	
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ							
1	Record Type	M (if standard measurement record) B (if biological measurement record)	R	R		R		Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	R	R		R		Num	999999	6	2	7	B
3	Lab Sample Number	Sample number used internally by the lab	R	R		R		Char	X(20)	20	8	27	C
4	Measurement No.	Measurement sequence number within a sample	R	R		R		Num	999999999	9	28	36	D
5	Project No.	Project number measurement is for	O *	n/a		n/a		Char	X(6)	6	37	42	E
6	Tissue Item No	Tissue item the measurement is from	O *	n/a		n/a		Num	999999	6	43	48	F
7	Measurement Date	Date measurement was made	R	R		R		Date	YYYYMMDDH HMISS	14	49	62	G
8	VMV Code	VMV parameter code for measurement**	R	R		R		Num	999999	6	63	68	H
9	Value	Numeric value of measurement	R	R		O #		Num	999999.99999	12	69	80	I
10	Flag	Flag to qualify measurement value**	O	O		O		Char	X	1	81	81	J
11	Pretreatment Code	Code for any pretreatment of the sample	n/a	n/a		n/a		Char	X	1	82	82	K
12	Sample Detect Limit	Detection limit for measurement	O ***	O ***		n/a		Char	X(15)	15	83	97	L
13	Value Type Code	Code to describe the type of value measured	n/a	n/a		n/a		Char	X(2)	2	98	99	M
14	Qualifier 1	First qualifier for measured value**	O	O		O		Char	X(4)	4	100	103	N
15	Qualifier 2	Second qualifier for measured value**	O	O		O		Char	X(4)	4	104	107	O
16	Qualifier 3	Third qualifier for measured value**	O	O		O		Char	X(4)	4	108	111	P
17	Qualifier 4	Fourth qualifier for measured value**	O	O		O		Char	X(4)	4	112	115	Q
18	Qualifier 5	Fifth qualifier for measured value**	O	O		O		Char	X(4)	4	116	119	R
19	Qualifier 6	Sixth qualifier for measured value**	O	O		O		Char	X(4)	4	120	123	S
20	Qualifier 7	Seventh qualifier for measured value**	O	O		O		Char	X(4)	4	124	127	T
21	Missing Meas. Code	Code to indicate reason for a missing measurement**	n/a	n/a		O #		Char	X(3)	3	128	130	U

Either Value or Missing Meas. Code is required - one or the other, but not both.

* Required if supplied by Alberta Environment, blank otherwise.

** If populated, must be a valid AEP code.

*** Required if actual detection limit differs from the standard VMV parameter's detection limit.

Record Name Measurement Detail (K) Comment

Description This optional record contains comments pertaining to a measurement or a bio-measurement.

- Notes**
- If a K comment record is included, all fields in the comment record are required.
 - Only one K comment record is allowed for each measurement record.
 - The lab sample number, measurement type and measurement number fields in each K record must relate to a corresponding M or B record in the data file with the same lab sample number, measurement type and measurement number.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Length	Start Pos.	End Pos.	PSV In XLS
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ						
1	Record Type	K	R	R		R	Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	R	R		R	Num	999999	6	2	7	B
3	Lab Sample Number	Sample number used internally by the lab	R	R		R	Char	X(20)	20	8	27	C
4	Measurement Type	M=Measurement B=Bio-measurement	R	R		R	Char	X	1	28	28	D
5	Measurement No.	Measurement number for this comment	R	R		R	Num	999999999	9	29	37	E
6	Comment	Text comment describing measurement	R	R		R	Char	X(2000) (Maximum size is 2000 characters. This field is terminated by the line feed character.)	0 to 255	38	37 to 292	F

Record Name Qualifier Code (Q) Comment

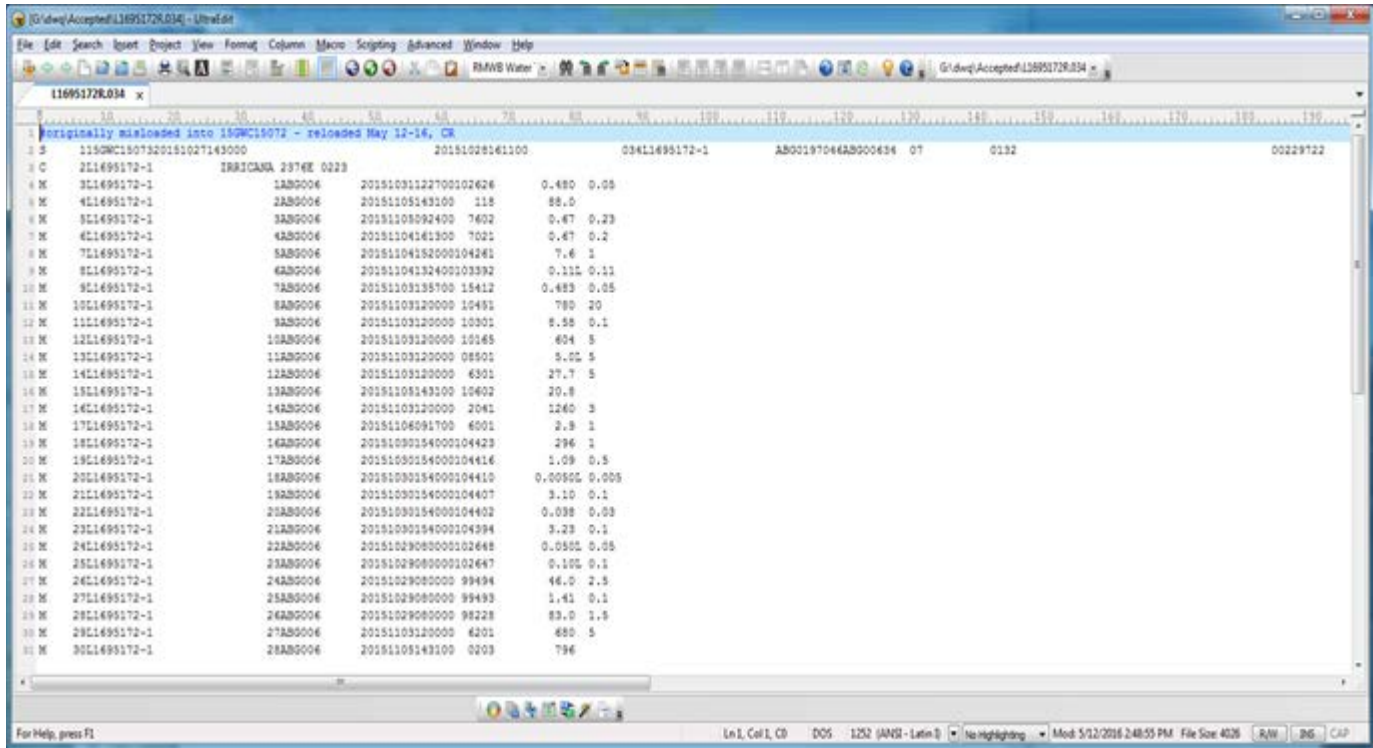
Description This optional record contains comments pertaining to a qualifier code in a measurement or bio-measurement record.

- Notes**
- If a Q comment record is included, all fields in the comment record are required.
 - Fields 3, 4, & 5 combination must exist as an M or B record type.
 - Qualifier (field 6) must be in one of 7 positions within the M or B record type and ** must be a valid AEP code.
 - There is a maximum of 7 qualifiers and corresponding comments for any one M or B record.

Field No.	Field Name	Description	Required / Optional				Data Type	Data Format	Data Length	Start Pos.	End Pos.	PSV In XLS
			1. Lab-AEP	2. Lab-Opr-M		4. Opr-DWQ						
1	Record Type	Q	R	R		R	Char	X	1	1	1	A
2	Record Number	Sequential number of each record in the file	R	R		R	Num	999999	6	2	7	B
3	Lab Sample Number	Sample number used internally by the lab	R	R		R	Char	X(20)	20	8	27	C
4	Measurement Type	M=Measurement B=Bio-measurement	R	R		R	Char	X	1	28	28	D
5	Measurement No.	Measurement number for this comment	R	R		R	Num	999999999	9	29	37	E
6	Qualifier	Qualifier code for measured value**	R	R		R	Char	X(4)	4	38	41	F
7	Comment	Qualifier comment	R	R		R	Char	X(2000)	2000	42	204 1	G

Examples: Fixed Format File:

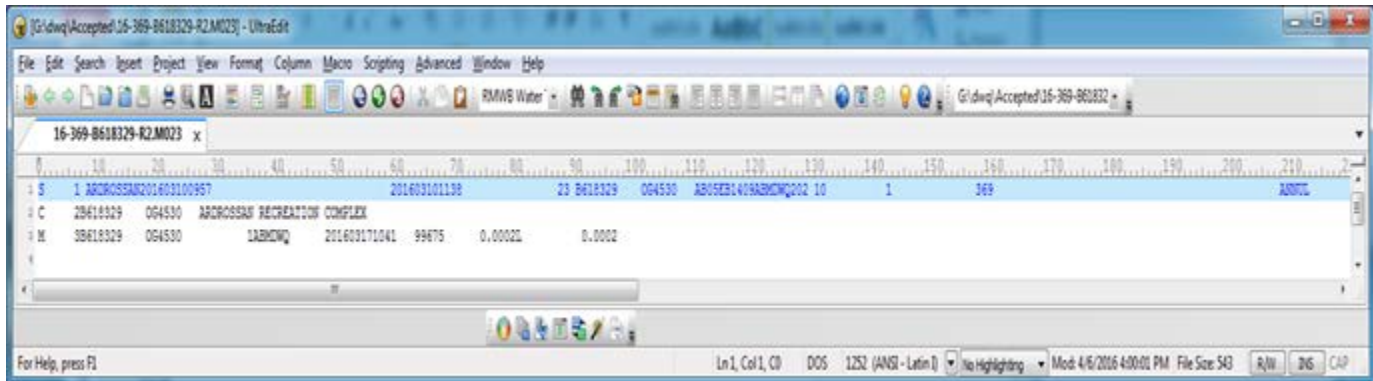
1. Lab-AEP



#originally misloaded into 15GWC15072 - reloaded May 12-16, CR

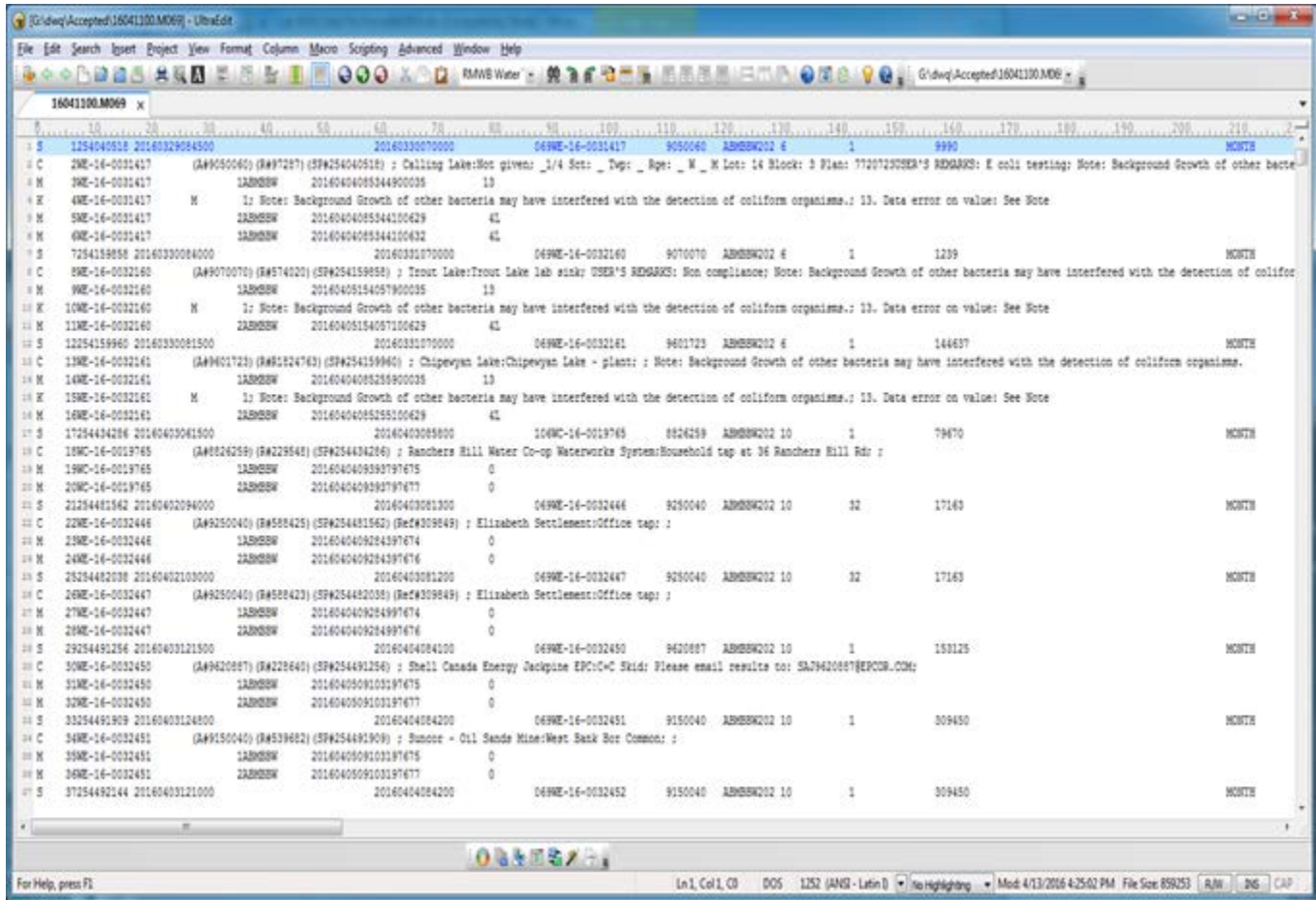
S 1 15GWC1507320151027143000 20151028161100 034L1695172-1
 ABG0197046ABG00634 07 0132 00229722
 C 2 L1695172-1 IRRICANA 2376E 0223
 M 3 L1695172-1 1ABG006 20151031122700102626 0.480 0.05
 M 4 L1695172-1 2ABG006 20151105143100 118 88.0 BNS
 K 5 L1695172-1 M 2MeasurementComment
 Q 6 L1695172-1 M 2BNS QualifierComment

2. Lab-OPR-M



S 1 ARDROSSAN201603100957 201603101138 23 B618329 OG4530
 AB05EB1409ABMDWQ202 10 1 369 ANNUL
 C 2 B618329 OG4530 ARDROSSAN RECREATION COMPLEX
 M 3 B618329 OG4530 1ABMDWQ 201603171041 99675 0.0002L 0.0002

Bacti file:



S 1254040518 20160329084500 20160330070000 069WE-16-0031417 9050060
 ABMBBW202 6 1 9990 MONTH
C 2WE-16-0031417 (A#9050060)(R#97287)(SP#254040518) ; Calling Lake:Not given; _1/4 Sct: _ Twp: _ Rge: _ W
 _ M Lot: 14 Block: 3 Plan: 7720723USER'S REMARKS: E coli testing; Note: Background Growth of other bacteria may
 have interfered with the detection of coliform organisms.
M 3WE-16-0031417 1ABMBBW 20160404085344900035 13
K 4WE-16-0031417 M 1; Note: Background Growth of other bacteria may have interfered with the detection of
 coliform organisms.; 13. Data error on value: See Note
M 5WE-16-0031417 2ABMBBW 20160404085344100629 4L
M 6WE-16-0031417 3ABMBBW 20160404085344100632 4L

4. Opr-DWQ

ID	Date	Description	Value	Frequency
000000	20160301000000	201603000000000-20160426-R-1.999 ROS Mar 2016 GWS Data		
000003	20160301000000	999AB05E850202678871 AB05E85020		DAILYMIN
000004	20160301000000	Log Removal Cryptosporidium Min		
000005	20160301000000	7446400000000000.0		
000007	20160301000000	999AB05E850202678868 AB05E85020		DAILYMIN
000008	20160301000000	Log Removal Giardia Min		
000009	20160301000000	7446400000000000.0		
000011	20160301000000	999AB05E850202678874 AB05E85020		DAILYMIN
000012	20160301000000	Log Removal Virus Min		
000013	20160301000000	7446400000000000.0		
000015	20160301000000	999AB05E850012678994 AB05E85001		DAILYTOT
000016	20160301000000	Roadside Total		
000017	20160301000000	10.0000		
000019	20160301000000	999AB05E850052678990 AB05E85005		DAILYMAX
000020	20160301000000	Filter 1 Turbidity (NTU) Max		
000021	20160301000000	0.0100		
000023	20160301000000	999AB05E850042678904 AB05E85004		DAILYMAX
000024	20160301000000	Filter 2 Turbidity (NTU) Max		
000025	20160301000000	0.0100		
000027	20160301000000	999AB05E850072678912 AB05E85007		DAILYMAX
000028	20160301000000	Filter 3 Turbidity (NTU) Max		
000029	20160301000000	0.0100		
000031	20160301000000	999AB05E850082678943 AB05E85008		DAILYMAX
000032	20160301000000	Filter 4 Turbidity (NTU) Max		
000033	20160301000000	0.0100		
000035	20160301000000	999AB05E850092678932 AB05E85009		DAILYMAX
000036	20160301000000	Filter 5 Turbidity (NTU) Max		
000037	20160301000000	0.0100		
000039	20160301000000	999AB05E850102678922 AB05E85010		DAILYMAX
000040	20160301000000	Filter 6 Turbidity (NTU) Max		
000041	20160301000000	0.0100		
000043	20160301000000	999AB05E850112678883 AB05E85011		DAILYMAX
000044	20160301000000	Filter 7 Turbidity (NTU) Max		
000045	20160301000000	0.0100		
000047	20160301000000	999AB05E850122678925 AB05E85012		DAILYMAX
000048	20160301000000	Filter 8 Turbidity (NTU) Max		
000049	20160301000000	0.0100		

PSV file field format / placement

F|<recordNo>|<approvalID>|<sentDate>|<emailAddress>|<dataYearMonth>|<fileName>|<notes>

T|<recordNo>|<stationNo>|<effectiveDate>|<statusIndicator>|<stationStatusComment>

S|<recordNo>|<sampleNo>|<sampleDate>|<sampleEndDate>|<sentDate>|<receivedDate>
|<returnedDate>|<labCode>|<labSampleNumber>|<stationNo>|<projectNo>|<agencyCode>
|<sampleMatrixCode>|<numberCaught>|<numberKept>|<sampleTypeCode>|<collectionCode>
|<groupSampleNo>|<sampleCrossRef>|<sampleDepth>|<samplerID1>|<samplerID2>|<samplerID3>
|<sampleFrequencyCode>|<readingType>

C|<recordNo>|<labSampleNumber>|<sampleComment>

M|<recordNo>|<labSampleNumber>|<measurementNo>|<projectNo>|<tissueItemNo>
|<measurementDate>|<VMVCode>|<value>|<flag>|<pretreatmentCode>|<sampleDetectLimit>
|<valueTypeCode>|<qualifier1>|<qualifier2>|<qualifier3>|<qualifier4>|<qualifier5>|<qualifier6>
|<qualifier7>|<missingMeasCode>

K|<recordNo>|<labSampleNumber>|<measType>|<measurementNo>|<measComment>

Q|<record No>|<labSampleNumber>|<measType>|<measurementNo>|<qualifier>|<comment>

B|<recordNo>|<labSampleNumber>|<measurementNo>|<projectNo>|<tissueItemNo>|<measurementDate>|<VMVCode>|
<value>|<flag>|<pretreatmentCode>|<sampleDetectLimit>|<valueTypeCode>|<qualifier1>|<qualifier2>|<qualifier3>|<qualif
ier4>|<qualifier5>|<qualifier6>|<qualifier7>|<missingMeasCode>

K|<recordNo>|<labSampleNumber>|<measBioType>|<measurementNo>|<measBioComment>

Q|<record No>|<labSampleNumber>|<measBioType>|<measurementNo>|<qualifier>|<comment>

Overall:

F|1|638|20160115|whomever@company|201509|00000638-20160115-R-1.999|Final

T|2|AB05EB5020|2015090200000|UOL|STATUS COMMENT = TEST

S|3||20150918000000|||999|AB05EB50202521449|AB05EB5020||10||19|||DAILY|MIN

C|4|AB05EB50202521449|Reservoir Effluent (Total) Chlorine Residual (mg/L) Min

M|5|AB05EB50202521449|000000002||20150918000000|103845|1.96||0.0100|BNS|||CRW||

K|6|AB05EB5020|M|1|SAMPLE SUBMITTED MORE THAN 24 HOURS AFTER COLLECTION

B|7|AB05EB50202521449|000000001||20150918000000|103845|1.96||0.0100|||

Q|8|AB05EB5020|M|5|BNS|QUALIFIER IN QUAL 1 POSITION (PSV) ON MEASUREMENT 5

Q|9|AB05EB5020|M|5|CRW|QUALIFIER IN QUAL 7 POSITION (PSV) ON MEASUREMENT 5

1. Lab-AEP

S|3||20150918000000|||023|AB05EB50202521449|AB05EB5020||10|1|||12345|67890||

C|4|AB05EB50202521449|Reservoir Effluent (Total) Chlorine Residual (mg/L) Min

M|5|AB05EB50202521449|000000001||20150918000000|103111|1.96||0.0100|||

M|6|AB05EB50202521449|000000002||20150918000000|103845|1.96||0.0100|||

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	S	3		2.01509E+13						23	AB05EB50	AB05EB5020		10	1								12345	67890
2	C		4	AB05EB50 Reservoir Effluent (Total) Chlorine Residual (mg/L) Min																				
3	M		5	AB05EB50	1		2.02E+13	103111	1.96			0.01												
4	M		6	AB05EB50	2		2.02E+13	103845	1.96			0.01												

2. Lab-OPR-M

S13|20150918000000||||999|AB05EB50202521449|AB05EB5020||10||19||638||||DAILY|MIN
 C14|AB05EB50202521449|Reservoir Effluent (Total) Chlorine Residual (mg/L) Min
 M16|AB05EB50202521449|000000002||20150918000000|103845|1.96||0.0100||||||
 K17|AB05EB5020|M|1|SAMPLE SUBMITTED MORE THAN 24 HOURS AFTER COLLECTION

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	S	3		2.01509E+13						999 AB05EB50202521449	AB05EB5020			10		19			638							DAILY MIN
2	C	4	AB05EB50202521449	Reservoir Effluent (Total) Chlorine Residual (mg/L) Min																						
3	M	6	AB05EB50202521449	2		2.02E+13	103845	1.96				0.01														
4	K	7	AB05EB5020	M	1 SAMPLE SUBMITTED MORE THAN 24 HOURS AFTER COLLECTION																					
5																										

4. Opr-DWQ

F11|638|20160115|whomever@company|201509|00000638-20160115-R-1.999|Final
 T12|AB05EB5020|20150902000000|UOL|STATUS COMMENT = TEST
 S13|20150918000000||||999|AB05EB50202521449|AB05EB5020||10||19||638||||DAILY|MIN
 C14|AB05EB50202521449|Reservoir Effluent (Total) Chlorine Residual (mg/L) Min
 M16|AB05EB50202521449|000000002||20150918000000|103845|1.96||0.0100||||||
 K17|AB05EB5020|M|1|SAMPLE SUBMITTED MORE THAN 24 HOURS AFTER COLLECTION

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	F	1	638	20160115 whomever@company		201509 00000638-20160115-R-1.999	Final																			
2	T	2	AB05EB5020	2.01509E+13	UOL	STATUS COMMENT = TEST																				
3	S	3		2.01509E+13						999 AB05EB50202521449	AB05EB5020			10		19			638							DAILY MIN
4	C	4	AB05EB50202521449	Reservoir Effluent (Total) Chlorine Residual (mg/L) Min																						
5	M	6	AB05EB50202521449	2		2.01509E+13	103845	1.96				0.01														
6	K	7	AB05EB5020	M	1 SAMPLE SUBMITTED MORE THAN 24 HOURS AFTER COLLECTION																					
7																										