Configuration over customization

SOUTHEAST EQUIS™ USER GROUP

PRESENTED BY: QIQI LIANG

CONTRIBUTORS: SUSAN HEALEY | ANDREA BRAZELL

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Agenda

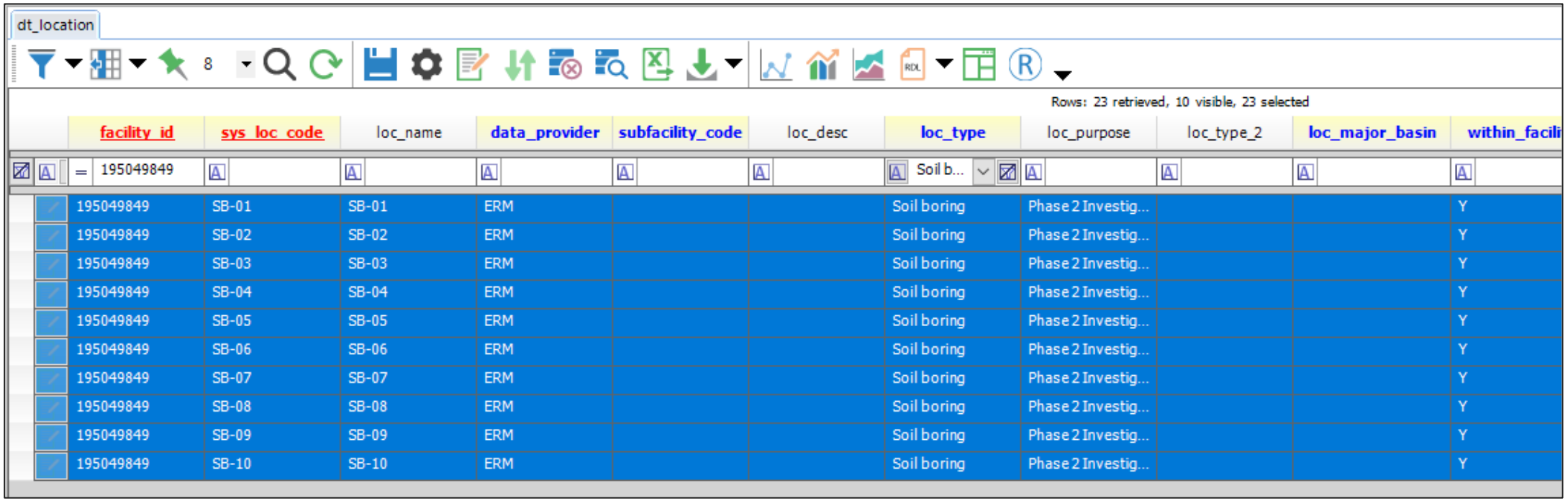
1. Data safety moment
2. Background and rationale
3. Report design process
4. Reports developed
5. Report flexibility
6. Challenges
7. Questions

Data safety moment

Caution with keyboard shortcuts in EQuIS™

A user encountered an issue when applying a filter to a data table and subsequently pressed CTRL + A to select filtered rows.

In EQuIS™, the keyboard shortcut selected all rows in the data table. Consequently, when the user proceeded with the next step, intending to delete only the filtered rows, all rows in the entire data table were inadvertently deleted.



facility_id	sys_loc_code	loc_name	data_provider	subfacility_code	loc_desc	loc_type	loc_purpose	loc_type_2	loc_major_basin	within_facili
= 195049849						Soil b...				
195049849	SB-01	SB-01	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-02	SB-02	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-03	SB-03	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-04	SB-04	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-05	SB-05	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-06	SB-06	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-07	SB-07	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-08	SB-08	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-09	SB-09	ERM			Soil boring	Phase 2 Investig...			Y
195049849	SB-10	SB-10	ERM			Soil boring	Phase 2 Investig...			Y

Background and rationale

Configuration over customization

Using EQuIS™ standard reports: configure a globally consistent set of reporting tools that align with ERM's global data governance requirements.

<u>Background:</u>

"ERM R" reports were class reports developed for ERM by EarthSoft to meet the reporting needs of the business. The functionality included in the reports was not available in EQuIS™ standard reports at the time they were developed.

<u>Rationale:</u>

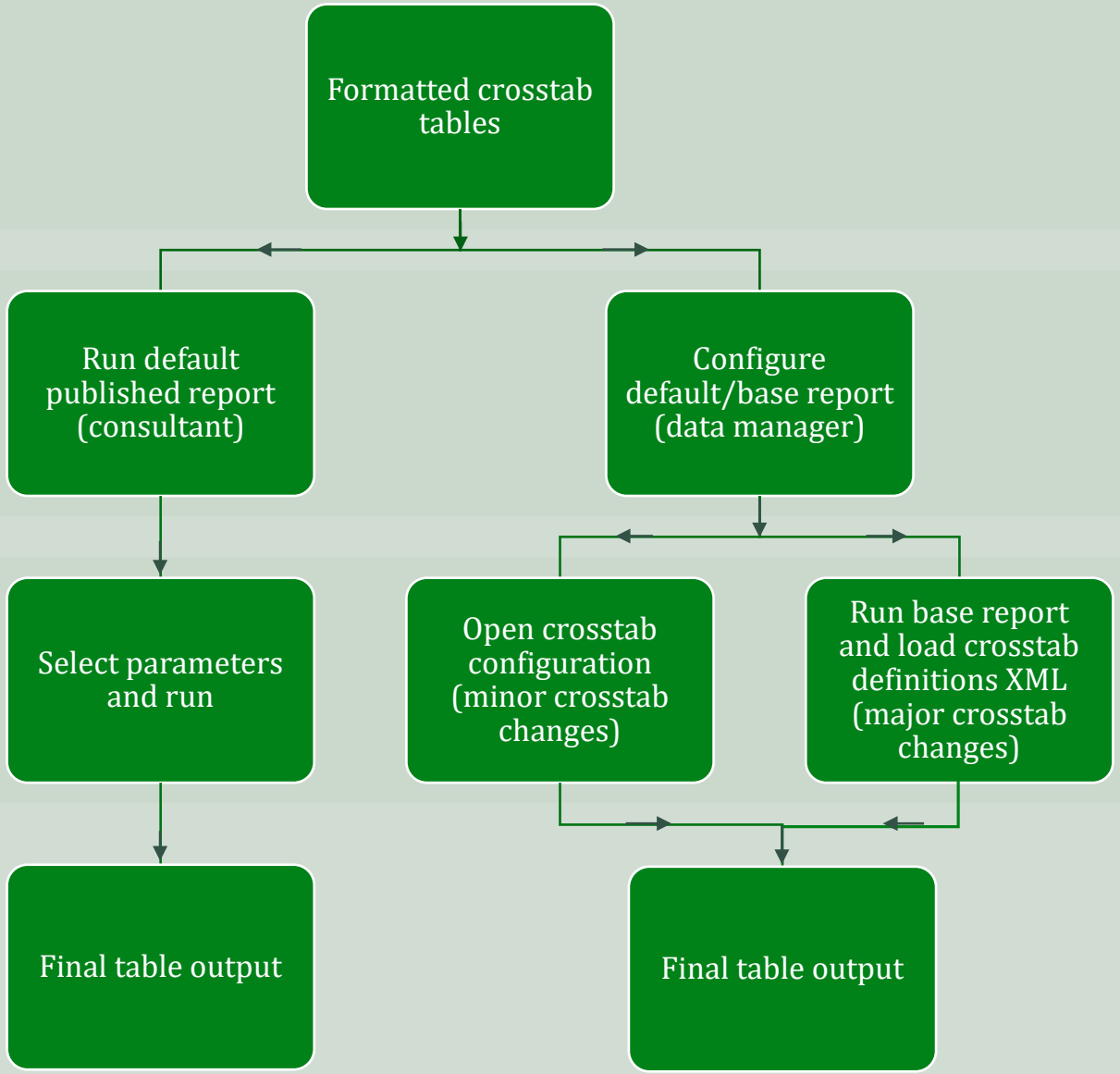
- "ERM R" report upgrade and maintenance is costly and time intensive; redundant effort to keep up with features and functionality available in EQuIS™ standard reports.
- "ERM R" report maintenance required vendor support and/or ERM coding specialist.
- Fully utilize the latest features and functionalities supported by EQuIS™ standard reports.
- Accommodate a diverse range of data tables while preserving standardization.

Reports design process

Suite of published crosstab reports

Designed for two types of user roles

Extra select | column configuration |Excel template are key to consistency



Reports developed

General layout

Reports:

- ERM Water Levels II
- ERM AR II
- ERM ALE II

Features:

- Meets format requirements of ERM's visual brand identity.
- Project-specific additional fields (i.e., geologic_unit_code, data fields from dt_water_level) can be added to standard data output.
- Ability for data manager to use the underlying tools configure project-specific tables using the same tools used to develop standard tables.

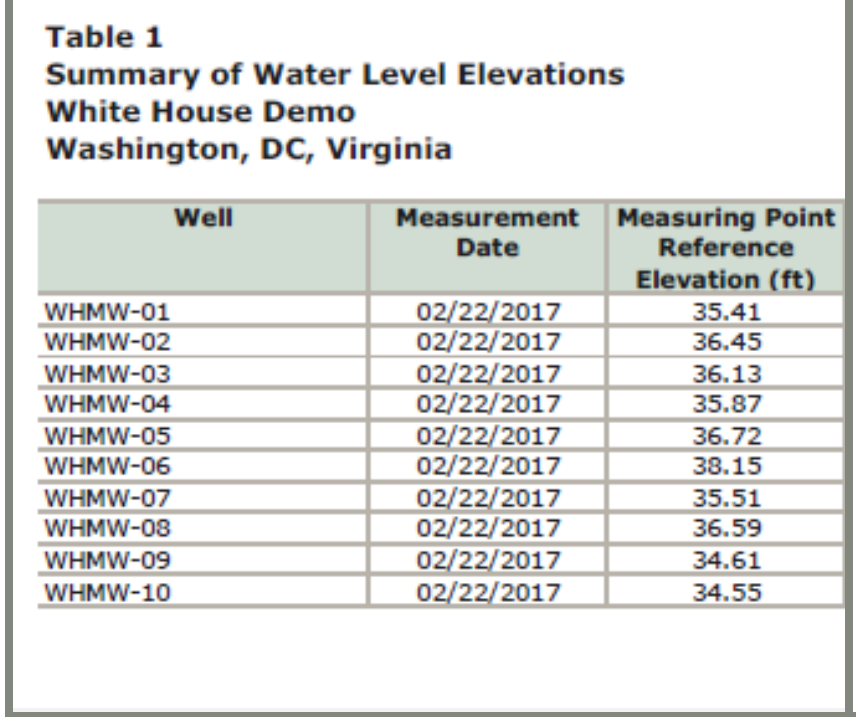


Table 1
Summary of Water Level Elevations
White House Demo
Washington, DC, Virginia

Well	Measurement Date	Measuring Point Reference Elevation (ft)
WHMW-01	02/22/2017	35.41
WHMW-02	02/22/2017	36.45
WHMW-03	02/22/2017	36.13
WHMW-04	02/22/2017	35.87
WHMW-05	02/22/2017	36.72
WHMW-06	02/22/2017	38.15
WHMW-07	02/22/2017	35.51
WHMW-08	02/22/2017	36.59
WHMW-09	02/22/2017	34.61
WHMW-10	02/22/2017	34.55

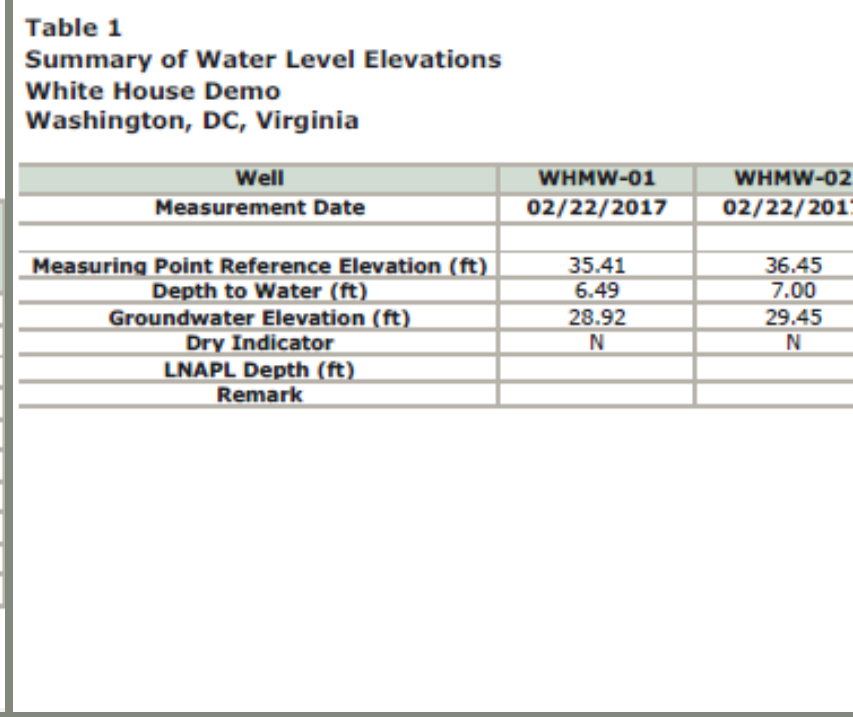


Table 1
Summary of Water Level Elevations
White House Demo
Washington, DC, Virginia

Well	WHMW-01	WHMW-02
Measurement Date	02/22/2017	02/22/201
Measuring Point Reference Elevation (ft)	35.41	36.45
Depth to Water (ft)	6.49	7.00
Groundwater Elevation (ft)	28.92	29.45
Dry Indicator	N	N
LNAPL Depth (ft)		
Remark		

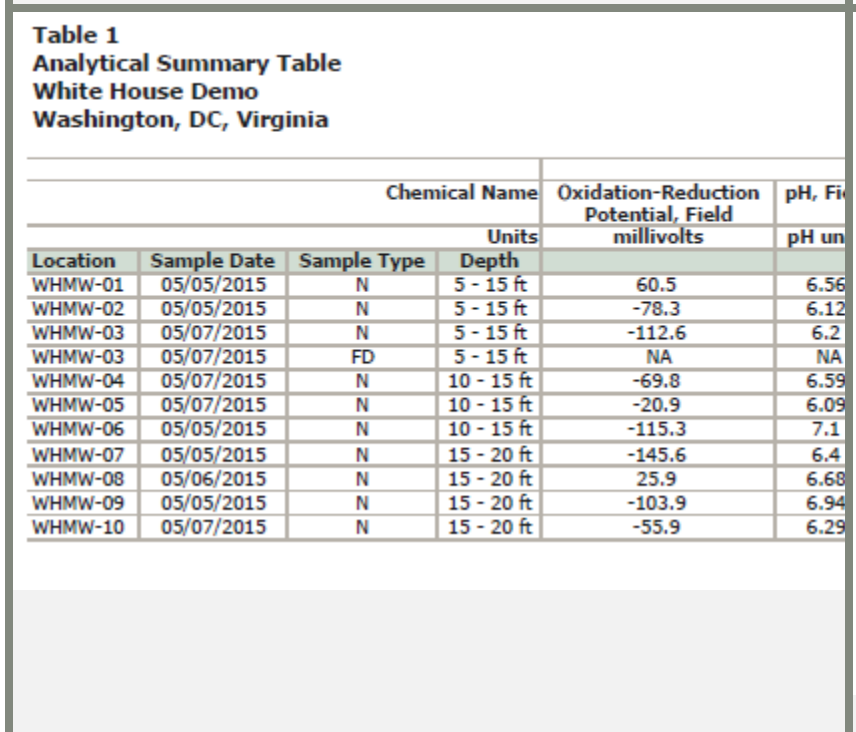


Table 1
Analytical Summary Table
White House Demo
Washington, DC, Virginia

				Chemical Name	Oxidation-Reduction Potential, Field	pH, Fi
				Units	millivolts	pH un
Location	Sample Date	Sample Type	Depth			
WHMW-01	05/05/2015	N	5 - 15 ft		60.5	6.56
WHMW-02	05/05/2015	N	5 - 15 ft		-78.3	6.12
WHMW-03	05/07/2015	N	5 - 15 ft		-112.6	6.2
WHMW-03	05/07/2015	FD	5 - 15 ft		NA	NA
WHMW-04	05/07/2015	N	10 - 15 ft		-69.8	6.59
WHMW-05	05/07/2015	N	10 - 15 ft		-20.9	6.09
WHMW-06	05/05/2015	N	10 - 15 ft		-115.3	7.1
WHMW-07	05/05/2015	N	15 - 20 ft		-145.6	6.4
WHMW-08	05/06/2015	N	15 - 20 ft		25.9	6.68
WHMW-09	05/05/2015	N	15 - 20 ft		-103.9	6.94
WHMW-10	05/07/2015	N	15 - 20 ft		-55.9	6.29

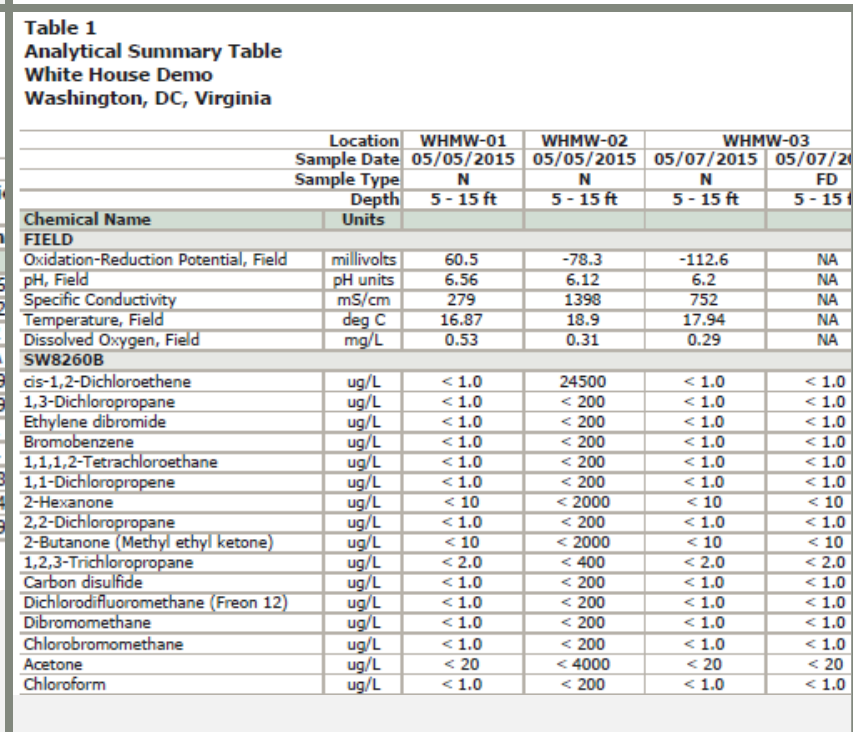


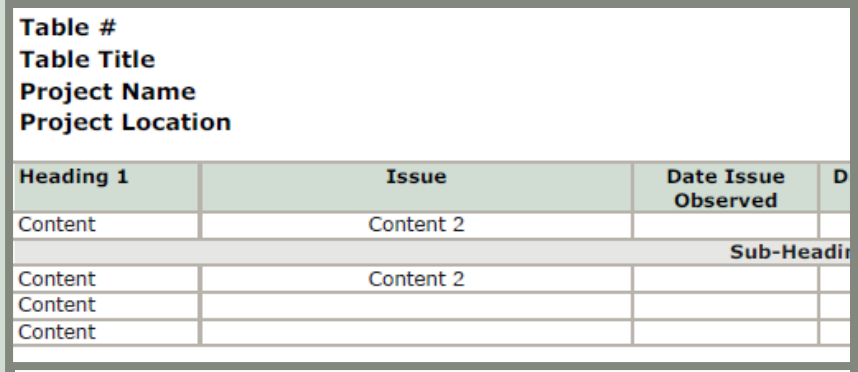
Table 1
Analytical Summary Table
White House Demo
Washington, DC, Virginia

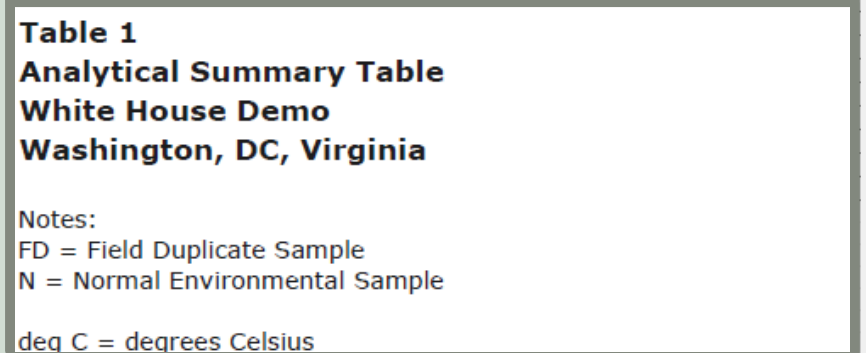
	Location	WHMW-01	WHMW-02	WHMW-03	
	Sample Date	05/05/2015	05/05/2015	05/07/2015	05/07/2(
	Sample Type	N	N	N	FD
	Depth	5 - 15 ft	5 - 15 ft	5 - 15 ft	5 - 15 f
Chemical Name	Units				
FIELD					
Oxidation-Reduction Potential, Field	millivolts	60.5	-78.3	-112.6	NA
pH, Field	pH units	6.56	6.12	6.2	NA
Specific Conductivity	mS/cm	279	1398	752	NA
Temperature, Field	deg C	16.87	18.9	17.94	NA
Dissolved Oxygen, Field	mg/L	0.53	0.31	0.29	NA
SW8260B					
cis-1,2-Dichloroethene	ug/L	< 1.0	24500	< 1.0	< 1.0
1,3-Dichloropropane	ug/L	< 1.0	< 200	< 1.0	< 1.0
Ethylene dibromide	ug/L	< 1.0	< 200	< 1.0	< 1.0
Bromobenzene	ug/L	< 1.0	< 200	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	ug/L	< 1.0	< 200	< 1.0	< 1.0
1,1-Dichloropropene	ug/L	< 1.0	< 200	< 1.0	< 1.0
2-Hexanone	ug/L	< 10	< 2000	< 10	< 10
2,2-Dichloropropane	ug/L	< 1.0	< 200	< 1.0	< 1.0
2-Butanone (Methyl ethyl ketone)	ug/L	< 10	< 2000	< 10	< 10
1,2,3-Trichloropropane	ug/L	< 2.0	< 400	< 2.0	< 2.0
Carbon disulfide	ug/L	< 1.0	< 200	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	ug/L	< 1.0	< 200	< 1.0	< 1.0
Dibromomethane	ug/L	< 1.0	< 200	< 1.0	< 1.0
Chlorobromomethane	ug/L	< 1.0	< 200	< 1.0	< 1.0
Acetone	ug/L	< 20	< 4000	< 20	< 20
Chloroform	ug/L	< 1.0	< 200	< 1.0	< 1.0

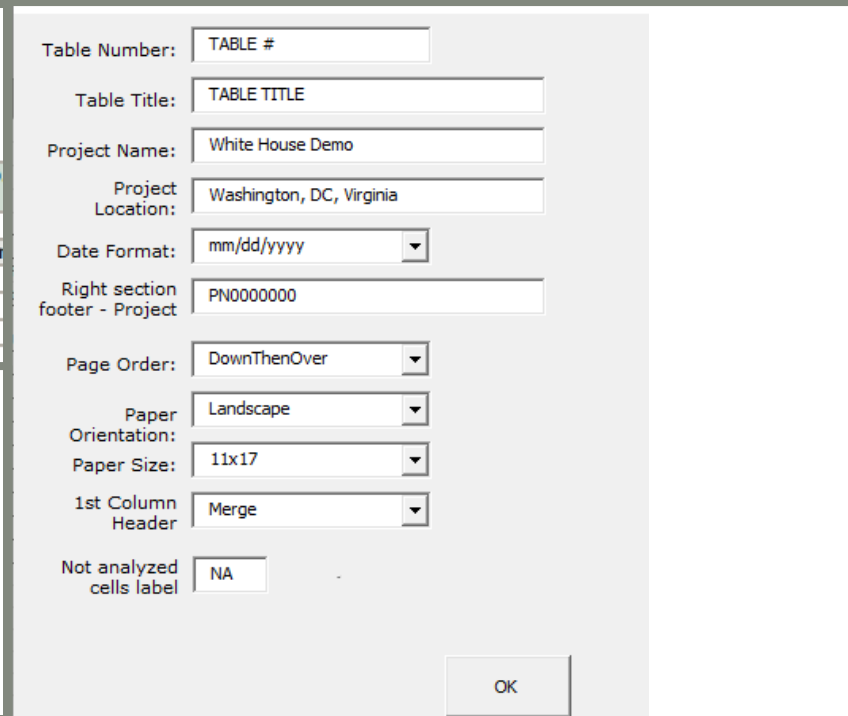
Report flexibility

Key features

- Reports configured for different user base (consultant | data manager).
- Configurable by ERM data managers; no hidden code or highly advanced coding skill required to meet project-specific reporting requirements.
- Notes are automatically derived from the data contained within the dataset; indicates when report is unable to define the note.
- Data managers with higher skill levels (vba | SQL) can further configure reports to meet project-specific requirements that involve major changes.



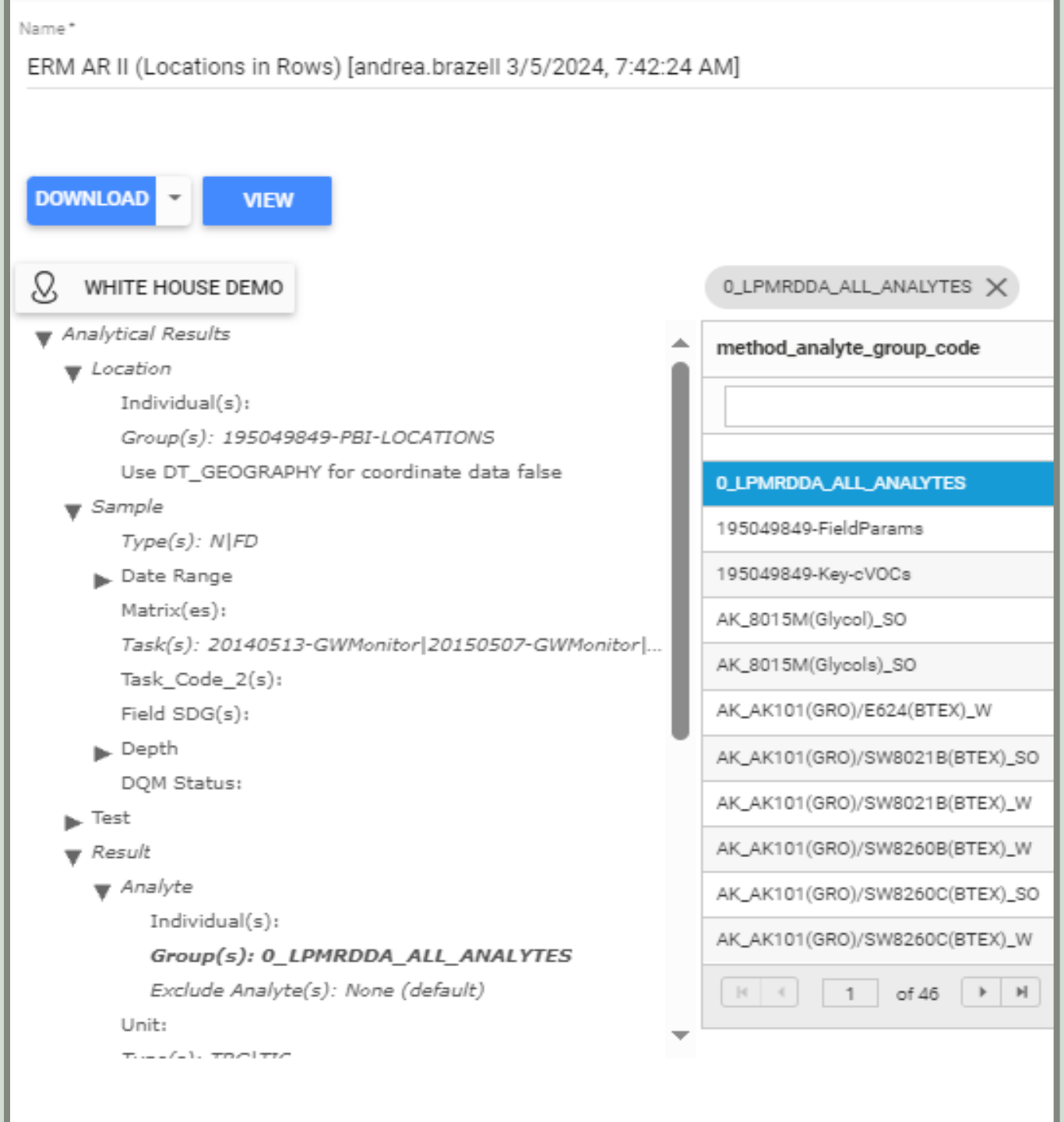




Report flexibility

Consultant – default published report

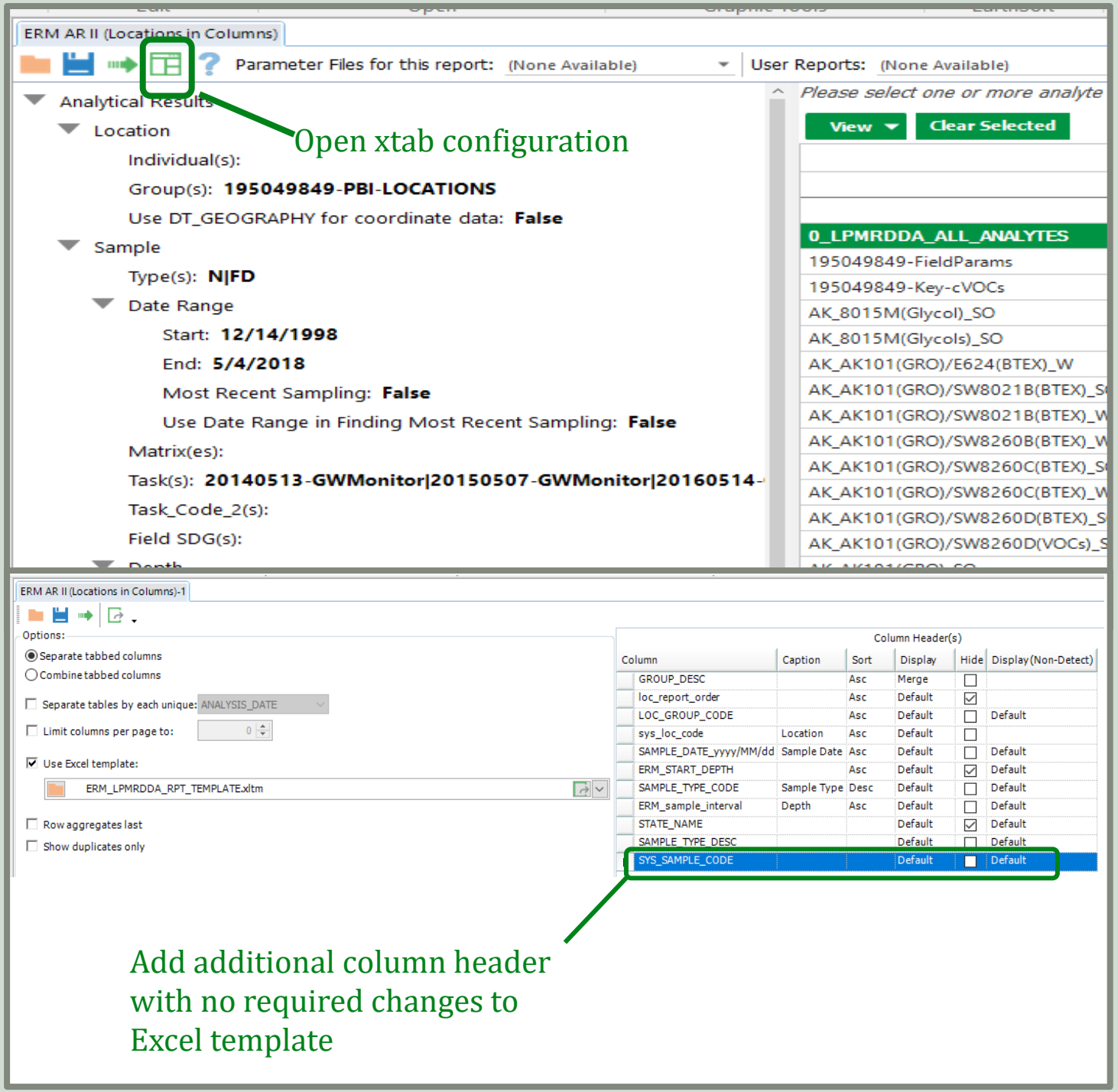
- Steps:
  - Navigate to EQuIS™ Enterprise dashboard.
  - Find the report EZView widget on reporting dashboard.
  - Click the gear icon to select parameters and hit ‘Download’
- Self-service portal tailored for consultants (non-data managers).
- Captions and visibility modified to improve user experience and provide clarity.
- Enables quick generation of consistently formatted tables.



Report flexibility

Data Manager - minor crosstab changes

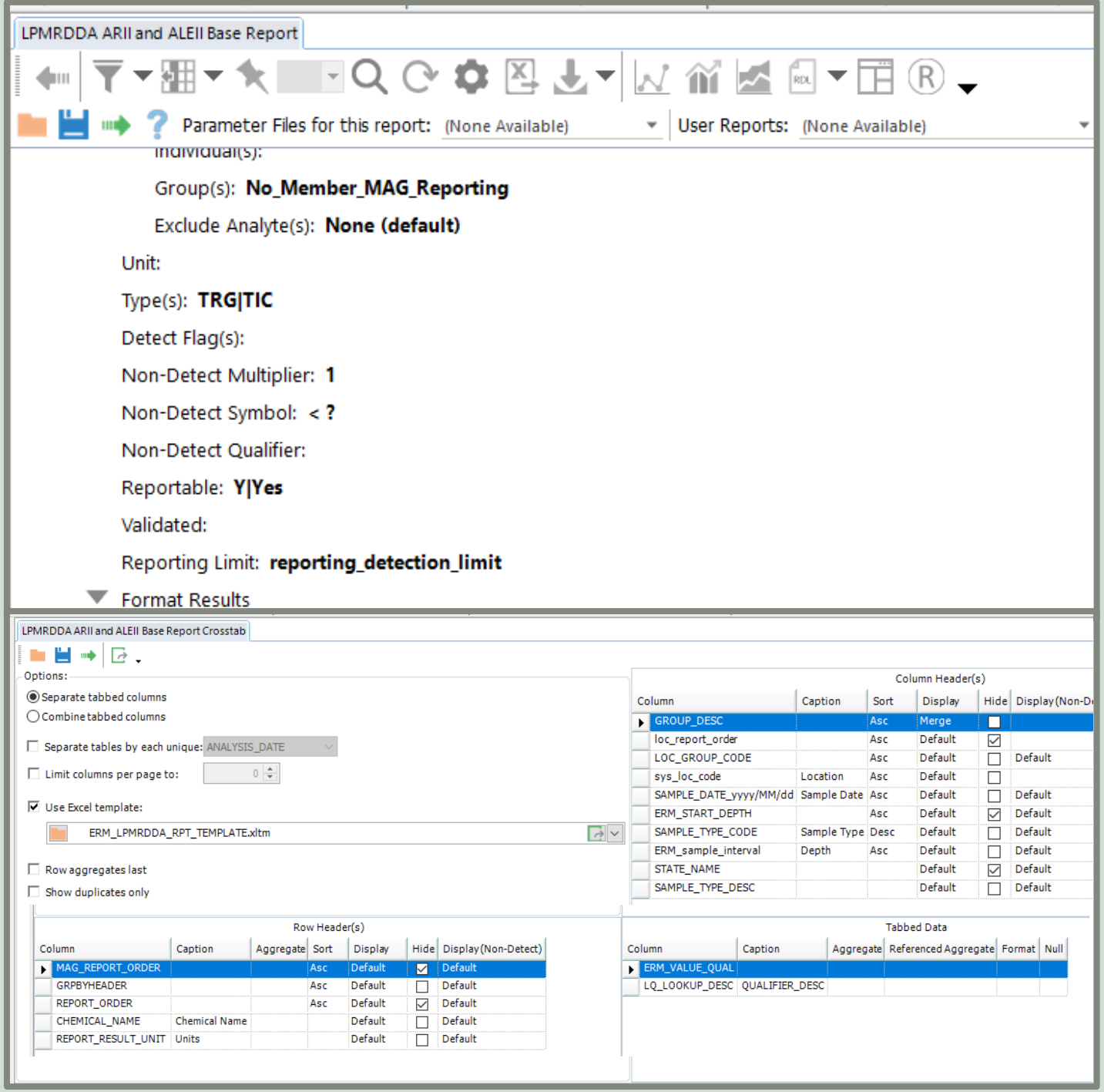
- Steps:
  - In EQuIS™ Professional, navigate to the folder that stores the generic published crosstab reports.
  - Select parameters and run. Review the output.
  - (Optional) Make minor adjustment by 'Open xtab configuration'.
  - (Optional) Publish it as a new xtab report and save a user report.
- Eliminates the need for developing site-specific Excel template.
- Empowers data managers to develop tables for their projects.
- Promotes data governance and ensures consistency across all projects.



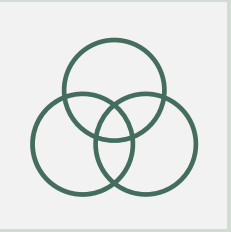
Report flexibility

Data Manager - major crosstab changes

- Steps:
  - In EQuIS™ Professional, locate the base report.
  - Select parameters and run. Review the data grid.
  - Load the default crosstab configuration or create your own crosstab configuration.
  - (Optional) Publish it as a new crosstab report and save a user report.
- Facilitates the creation of more complex tables.
- Encourages creativity and out-of-the box thinking.
- Motivates users to explore standard functionalities and deepen their understanding of reporting options in EQuIS™.



Challenges



Data Governance

- Establishing and maintaining data governance provides sustainable reporting opportunities long-term; this is challenging in a data system that has been in operation for 20 years.
- Changes in data governance to account for changes in vendor software.

Known issues | Feature requests

Software limitations:

- Published crosstab is unable to handle differing number of action levels.
- Non-detect formatting is not working as described in vendor documentation.
- Underlying class report structure varies across EQuIS™ standard reports (e.g. location groups are treated differently in Analytical Results II vs. when adding as additional fields in Water Level II reports).

Change Management

Adoption of new tools is challenging in any organization. Establishing well defined change management practices is important.

- Provide training and support.
- Gather and respond to feedback.
- Continued process and tool improvement.

Questions

Thank you