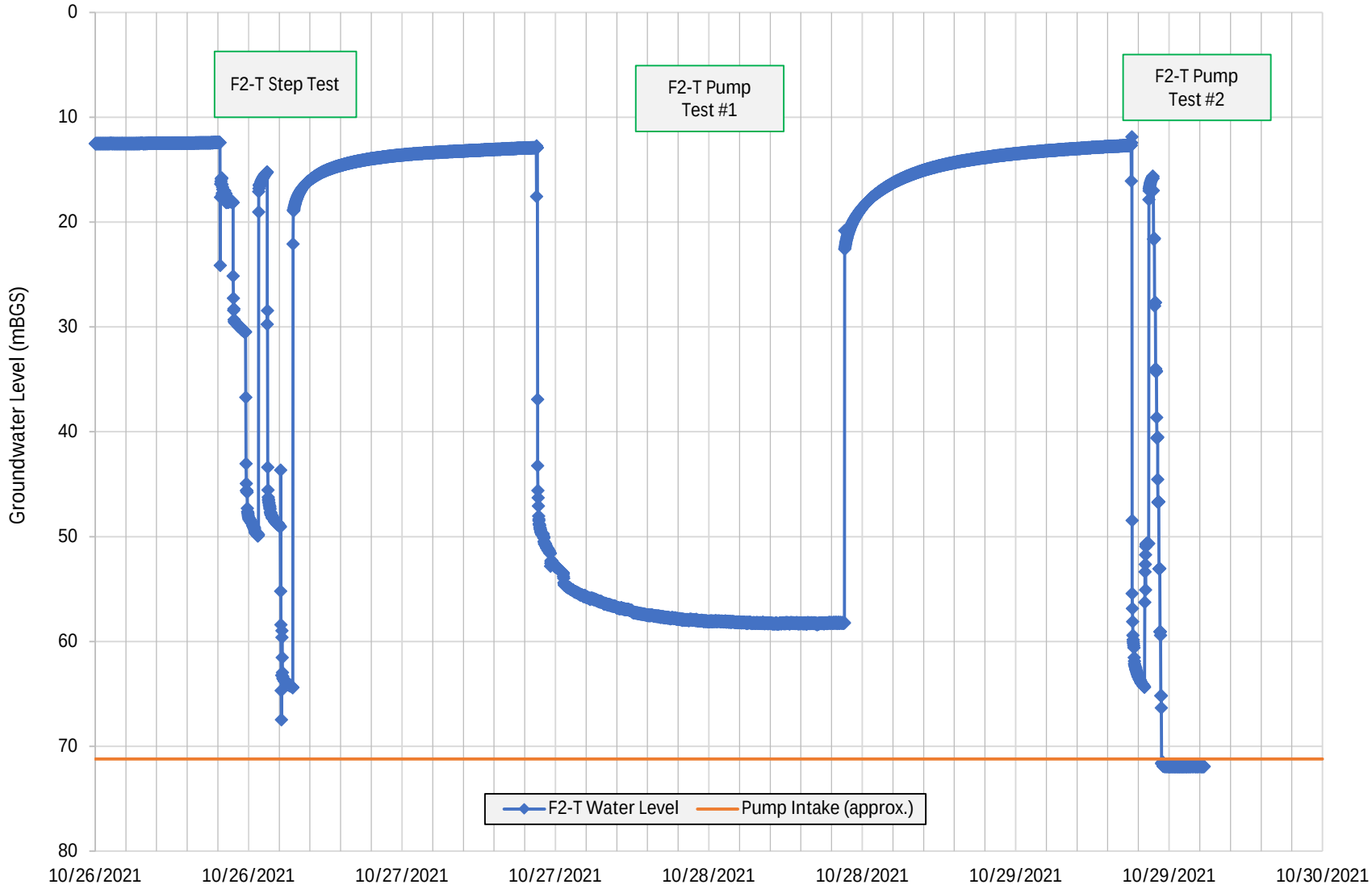
Appendix D

Hydrographs

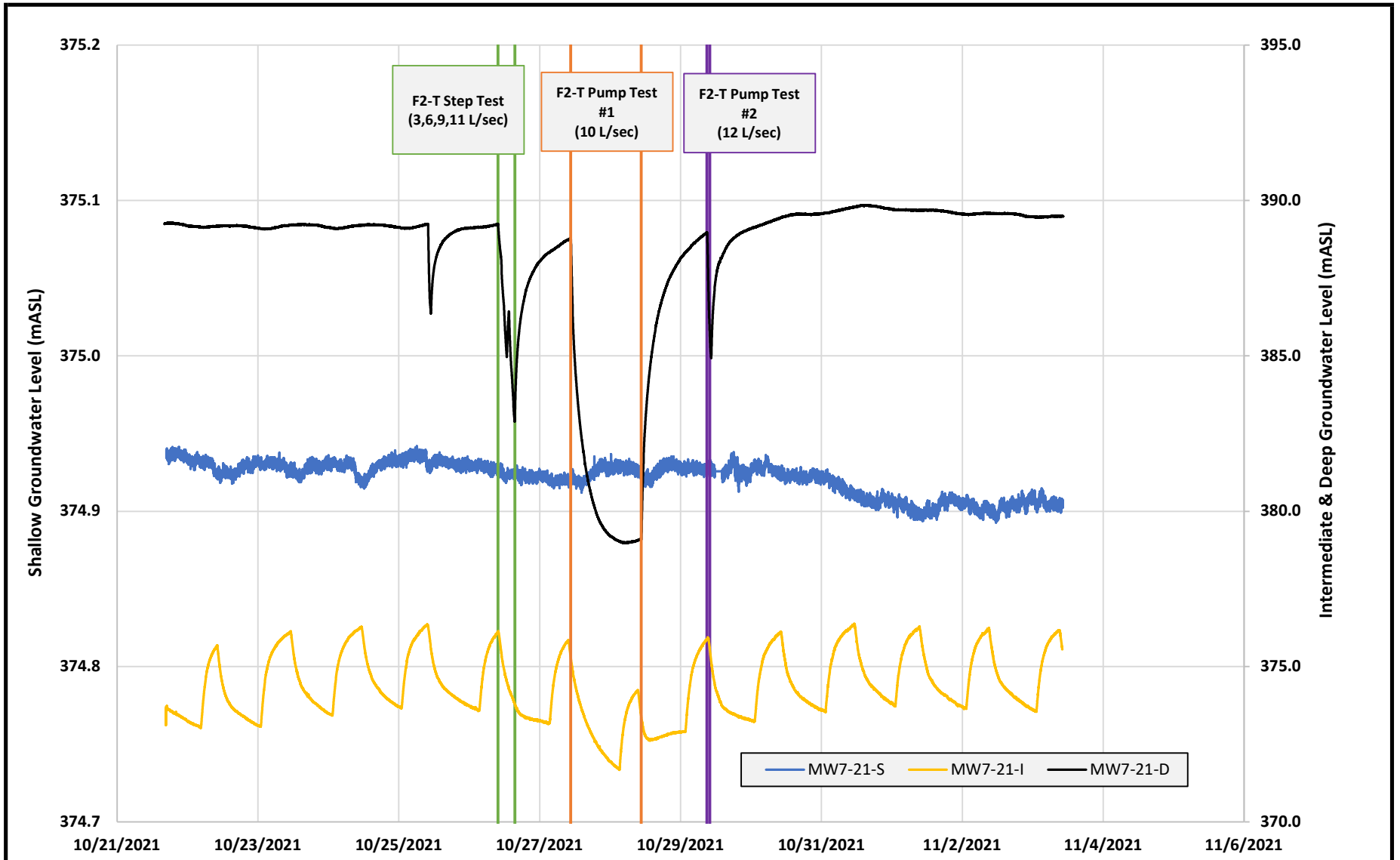


AECOM

F2-T Pumping Test Hydrograph

February 2023

Figure D-1

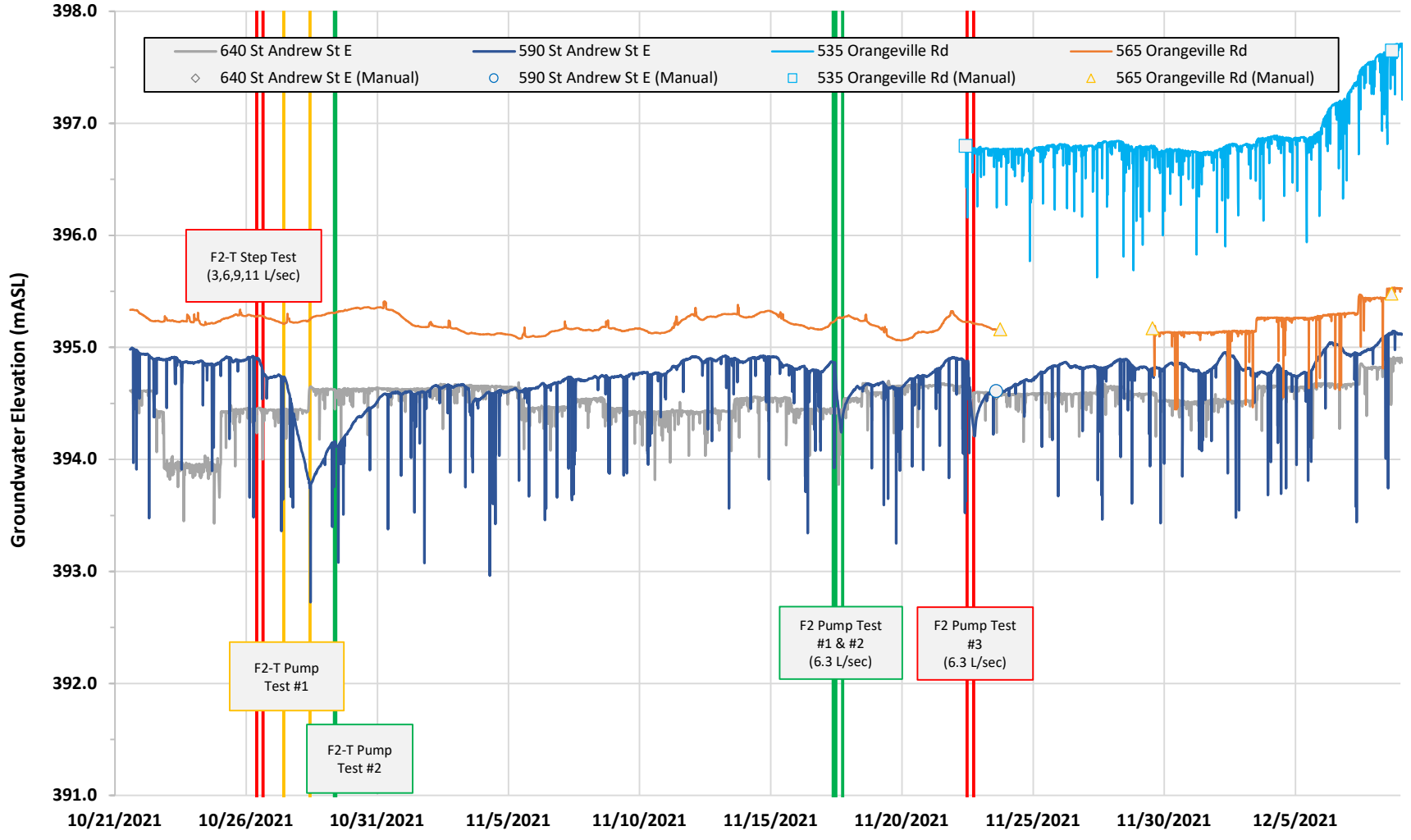


AECOM

F2-T Pump Test - MW7-21 Hydrograph

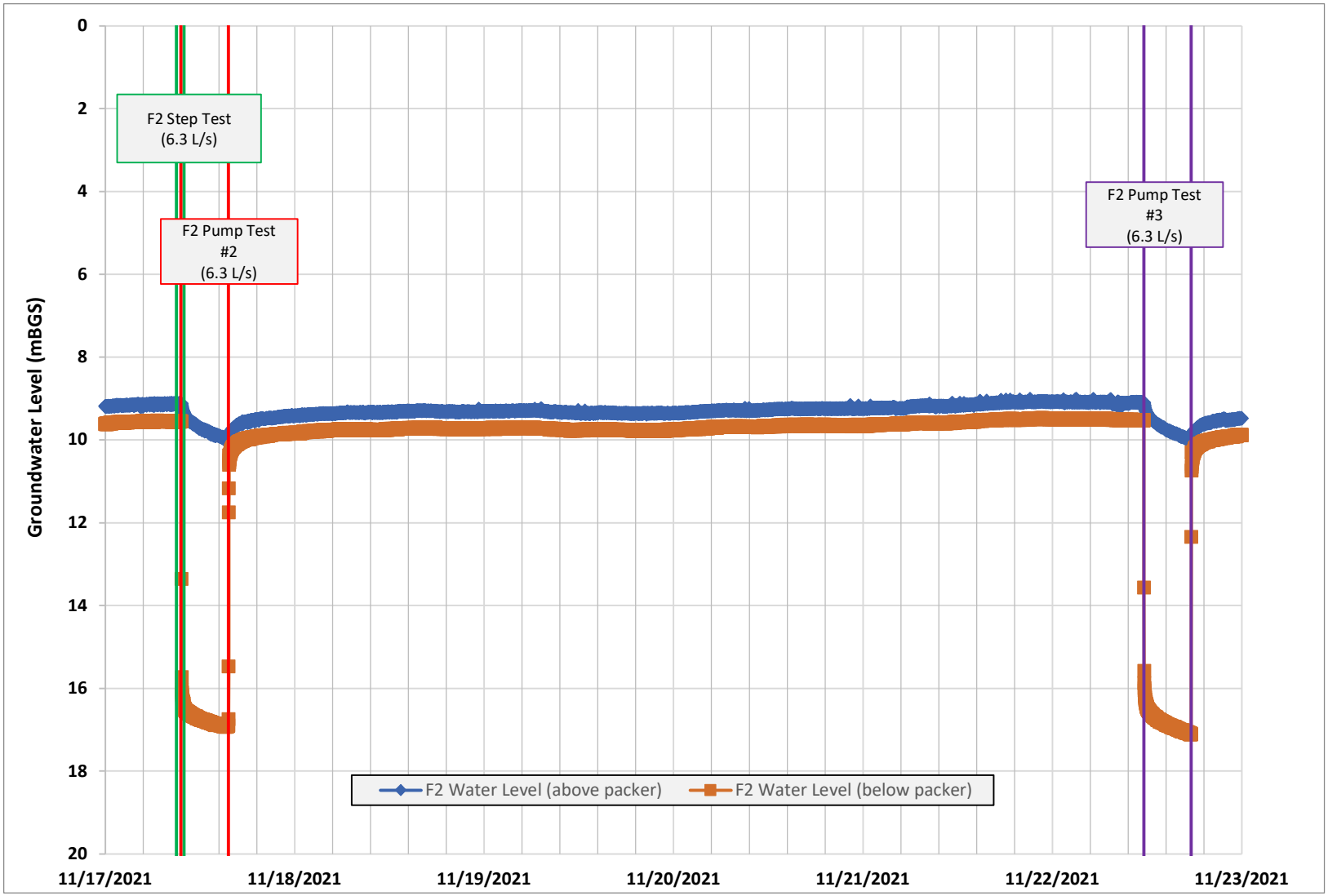
February 2023

Figure D-2



Note: well elevation is estimated from Google Earth

AECOM	**F2-T and F2 Pumping Test - Private Wells Hydrograph**	**February 2023**
		Figure D-3



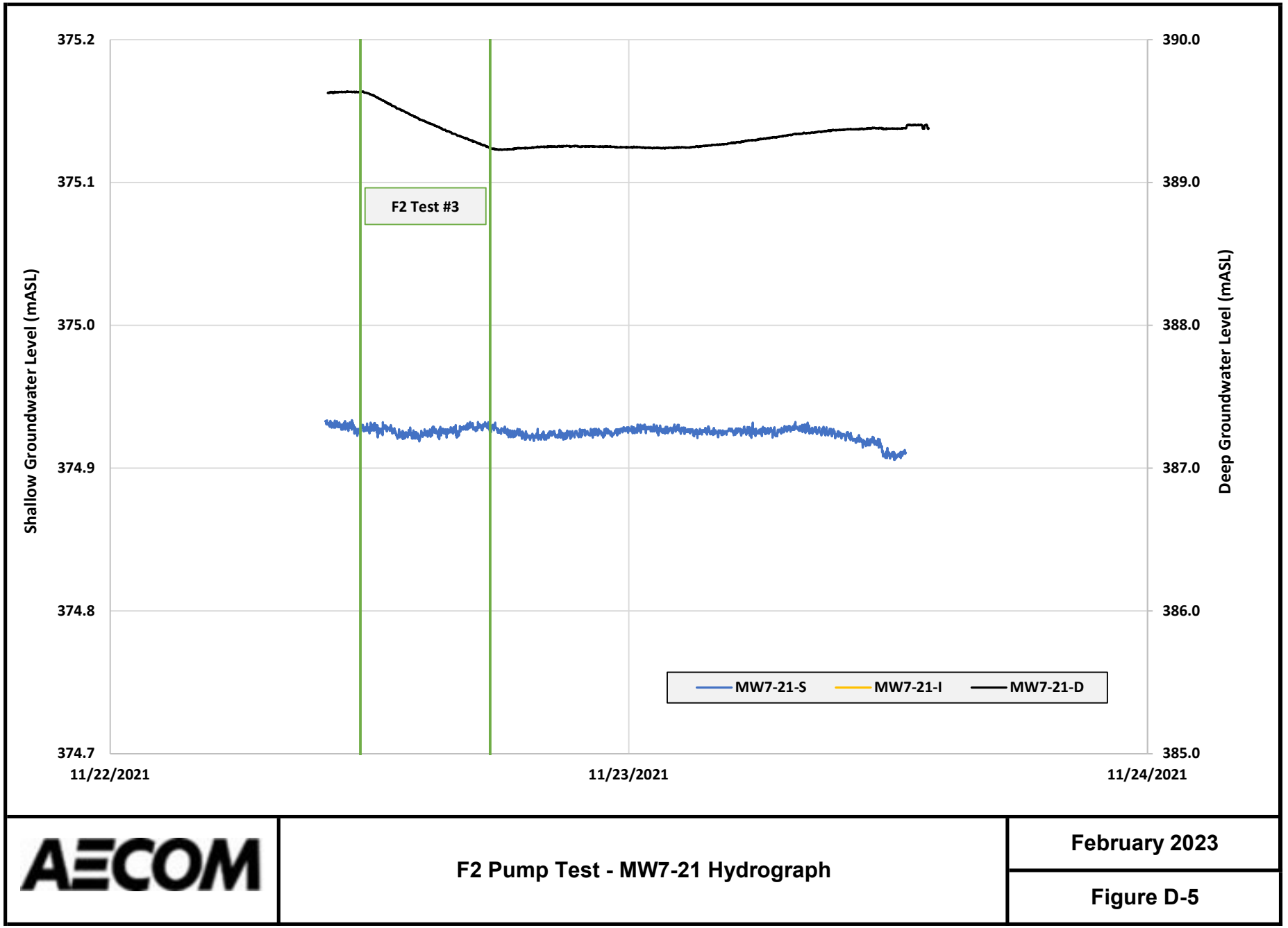
Note: packer set at 44 mBGS

AECOM

F2 Pumping Test Hydrograph

February 2023

Figure D-4

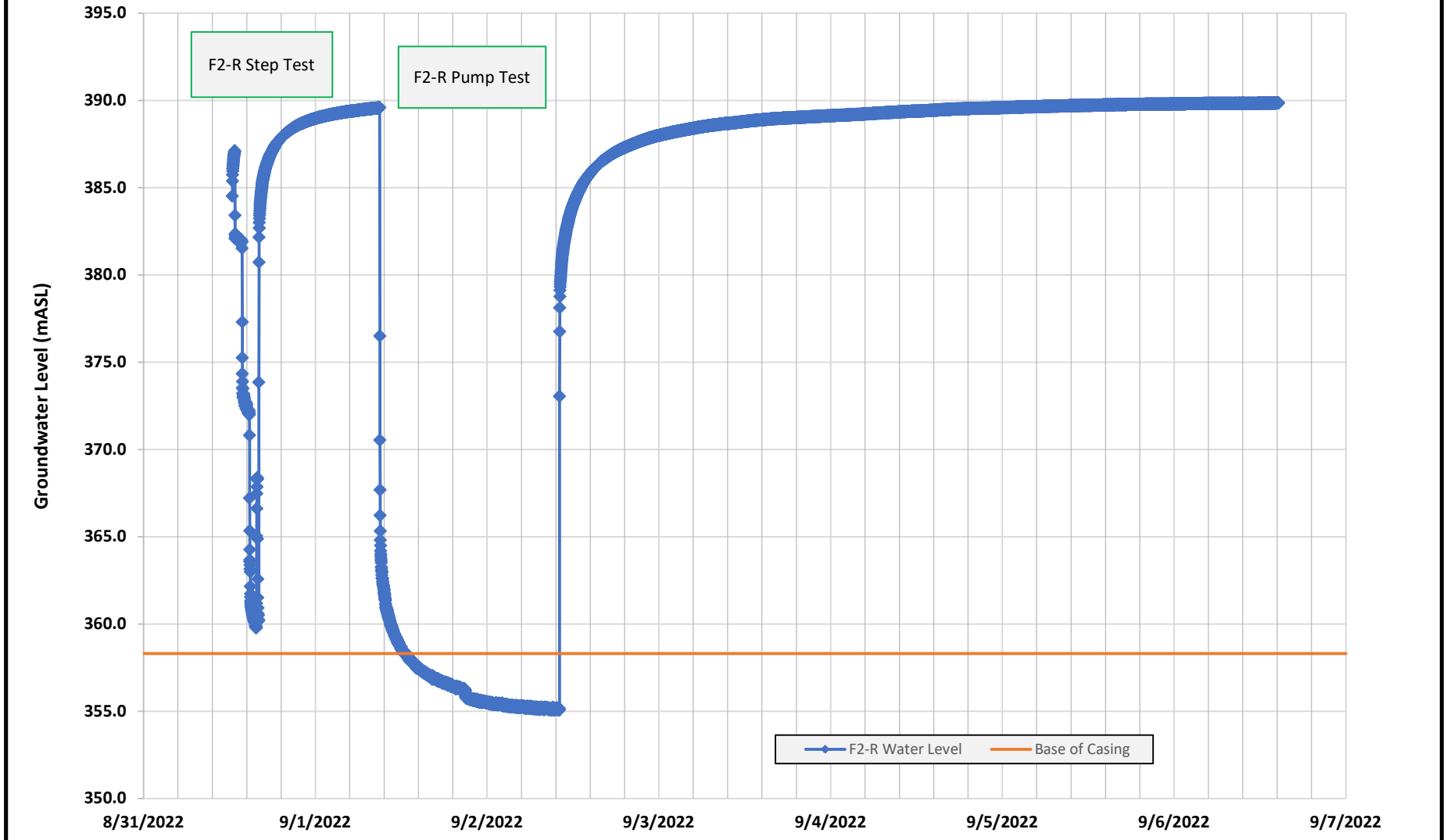


AECOM

F2 Pump Test - MW7-21 Hydrograph

February 2023

Figure D-5

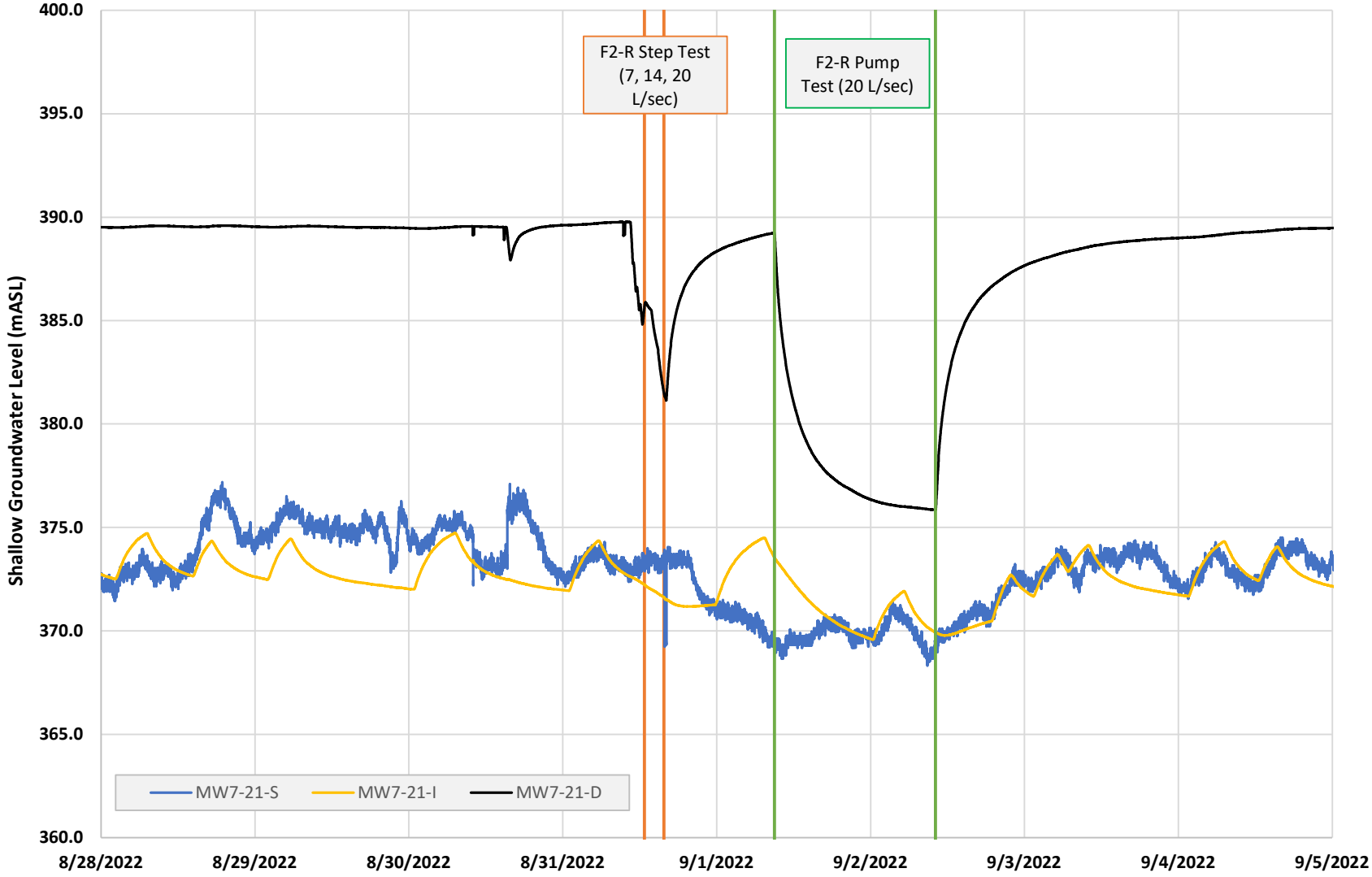


AECOM

F2-R Pumping Test Hydrograph

February 2023

Figure D-6

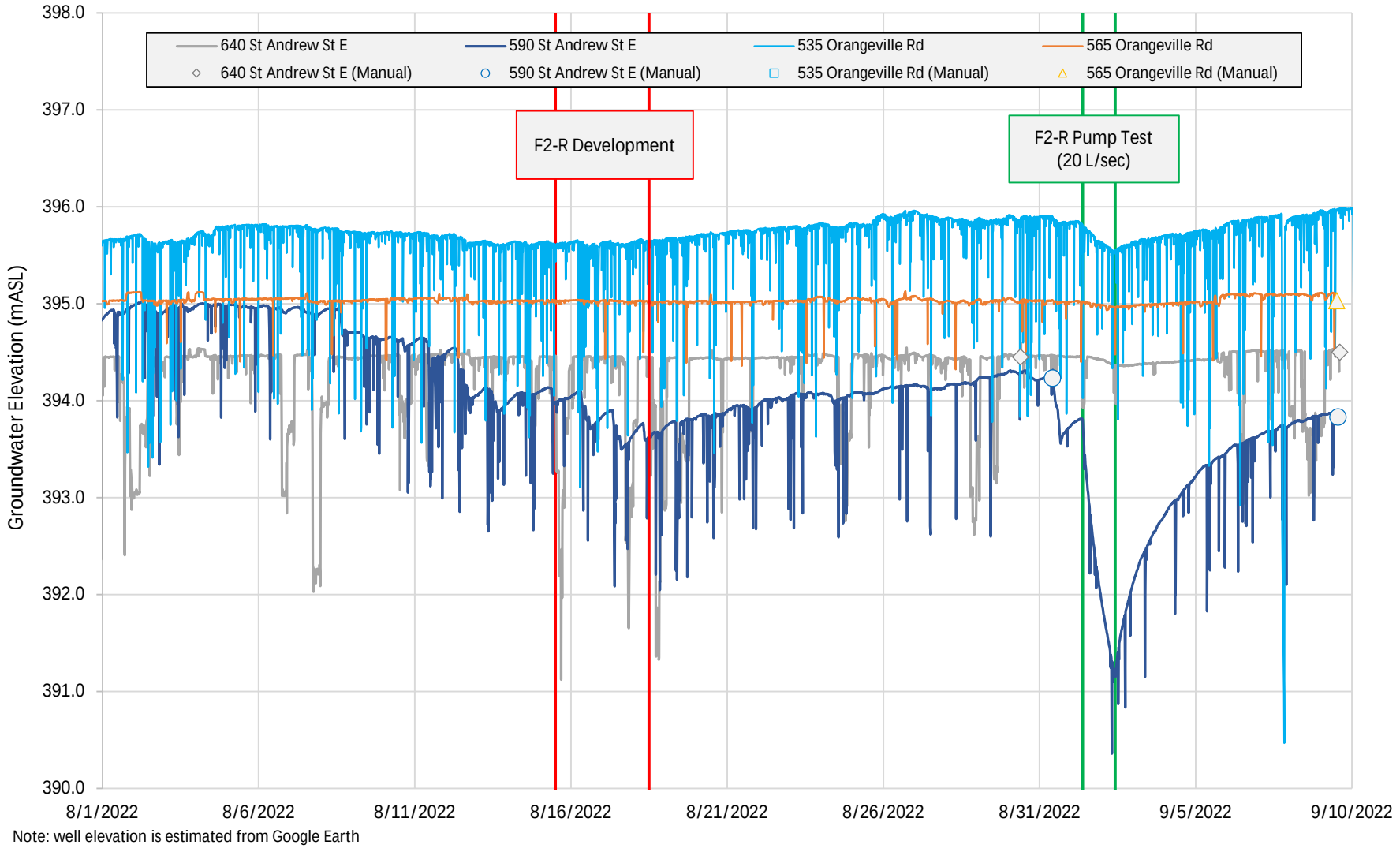


AECOM

F2-R Pump Test - MW7-21 Hydrograph

February 2023

Figure D-7



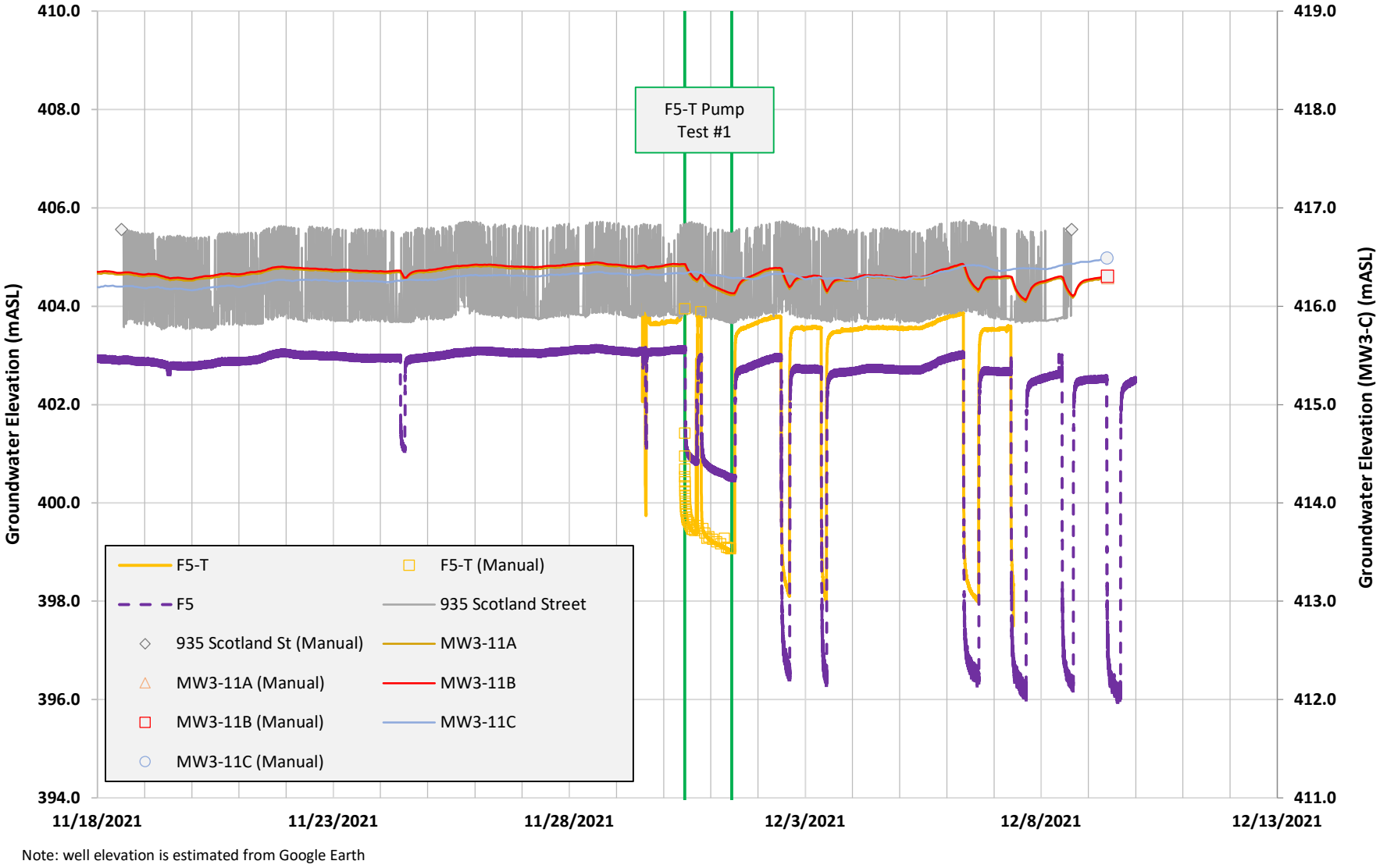
Note: well elevation is estimated from Google Earth

AECOM

F2-R Pumping Test - Private Wells Hydrograph

February 2023

Figure D-8



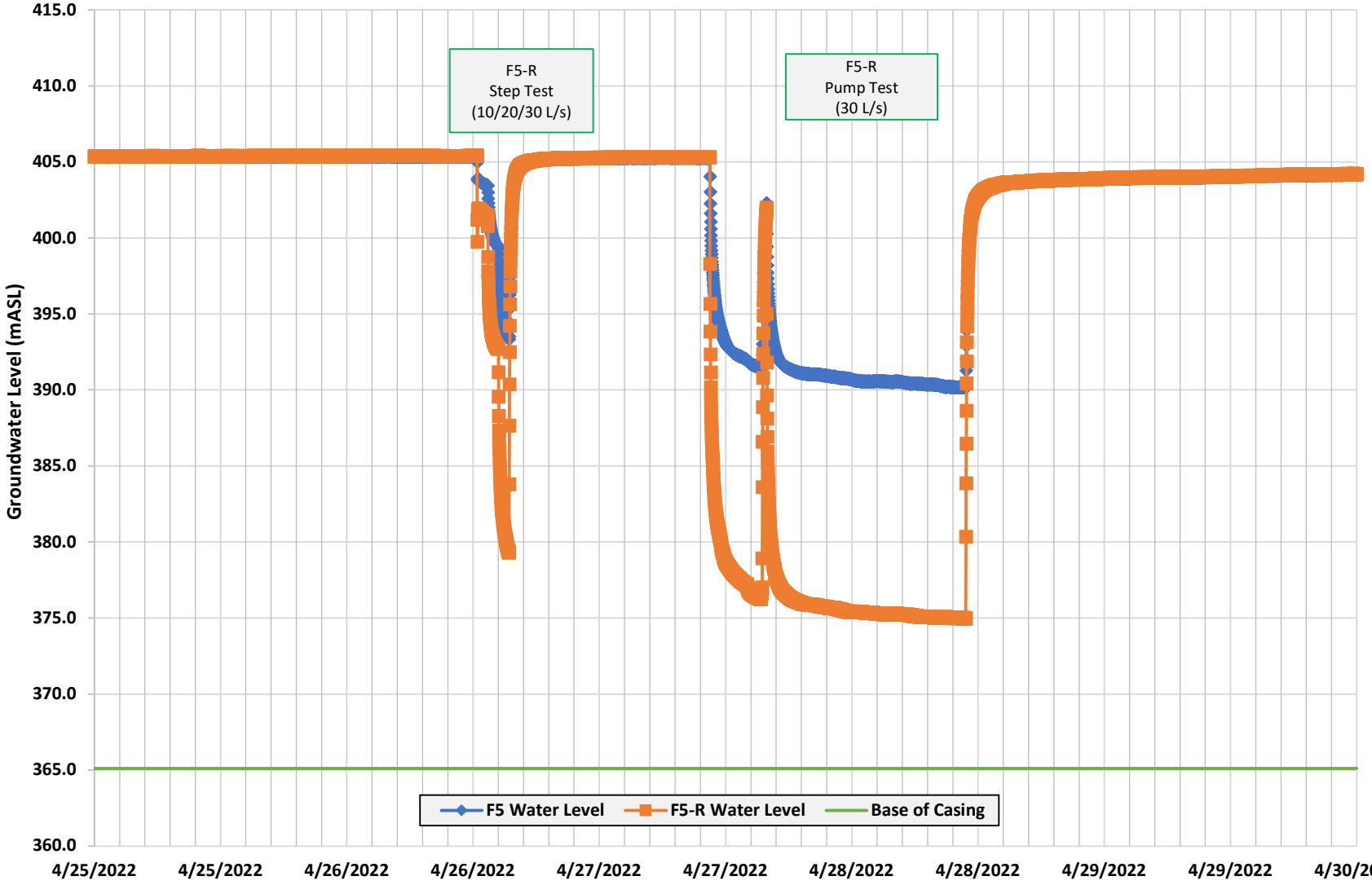
Note: well elevation is estimated from Google Earth

AECOM

F5-T Pumping Test Hydrograph

February 2023

Figure D-9

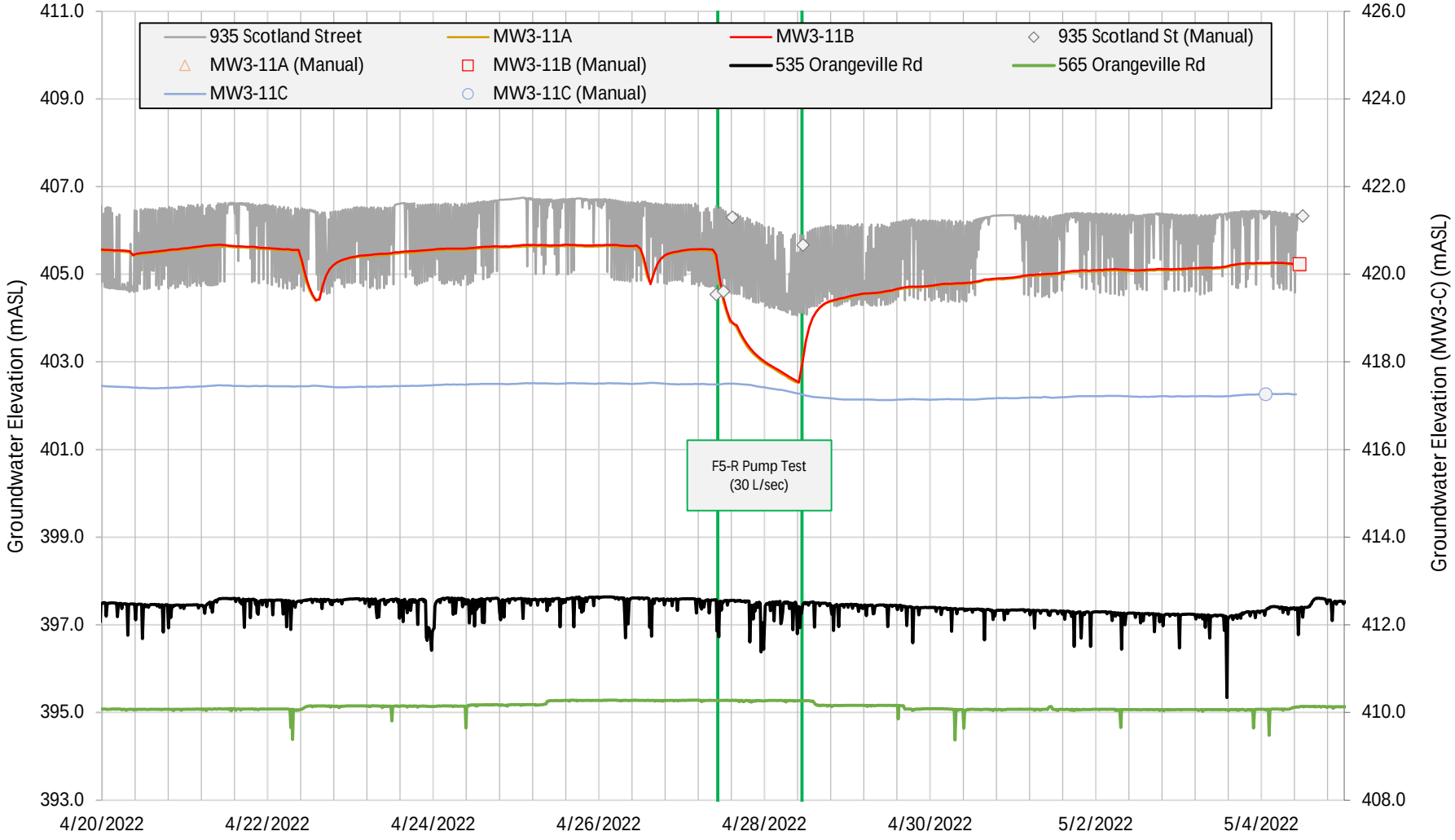


AECOM

F5-R Pumping Test Hydrograph

February 2023

Figure D-10



Note: well elevation is estimated from Google Earth

AECOM

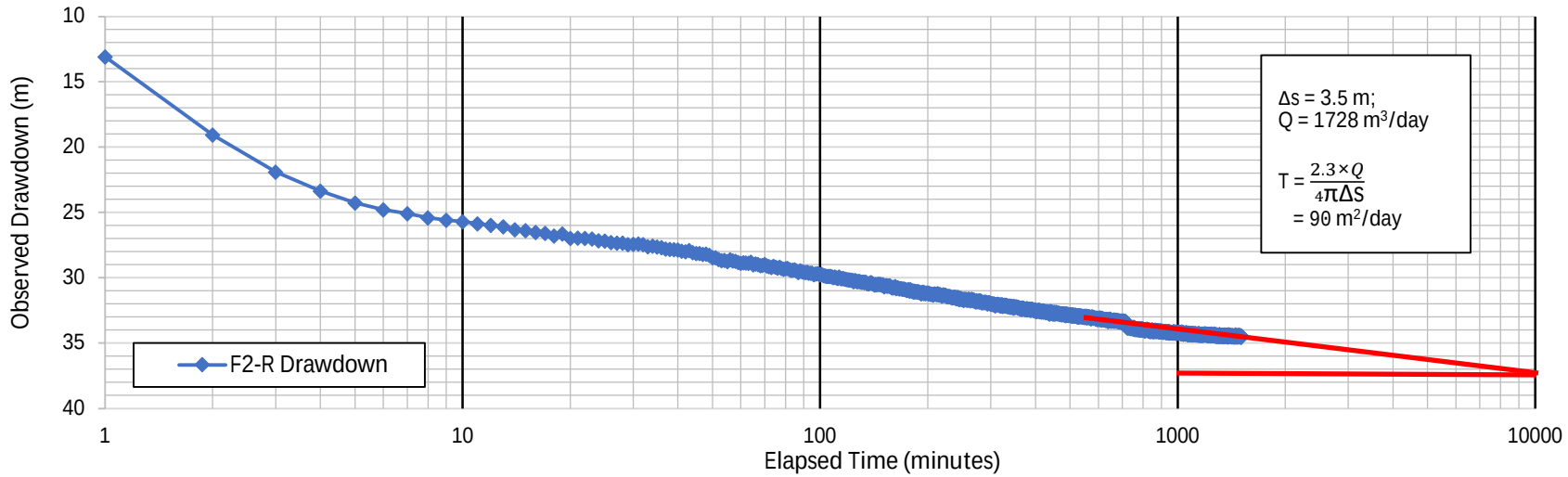
F5-R Pumping Test Hydrograph

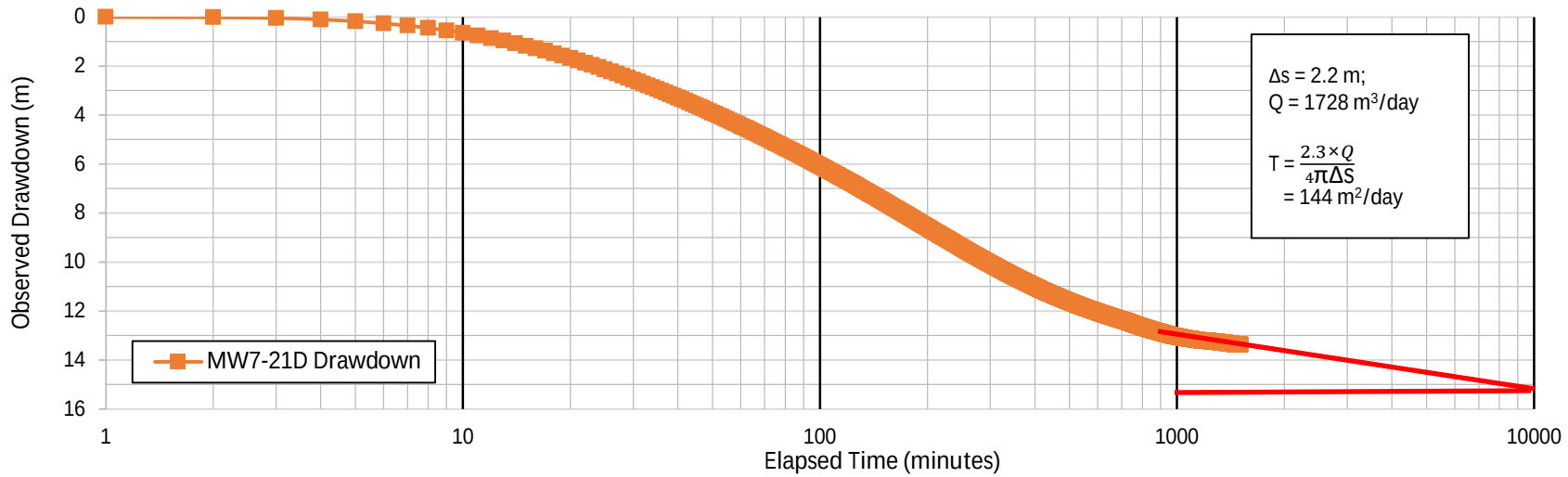
February 2023

Figure D-11

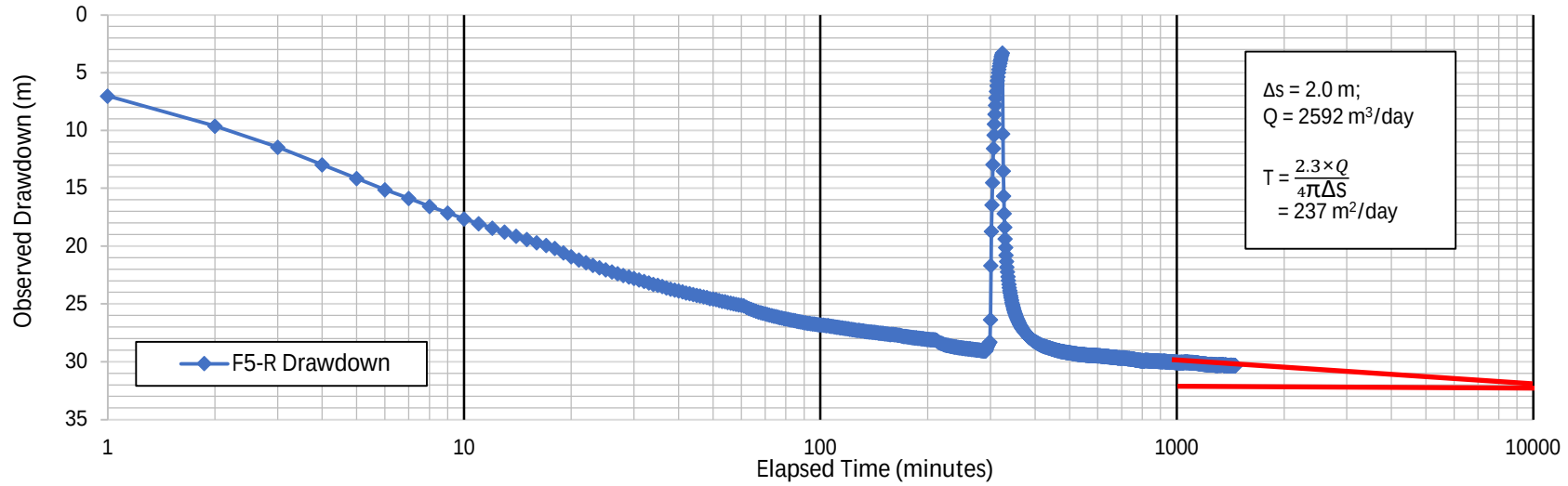
Appendix F

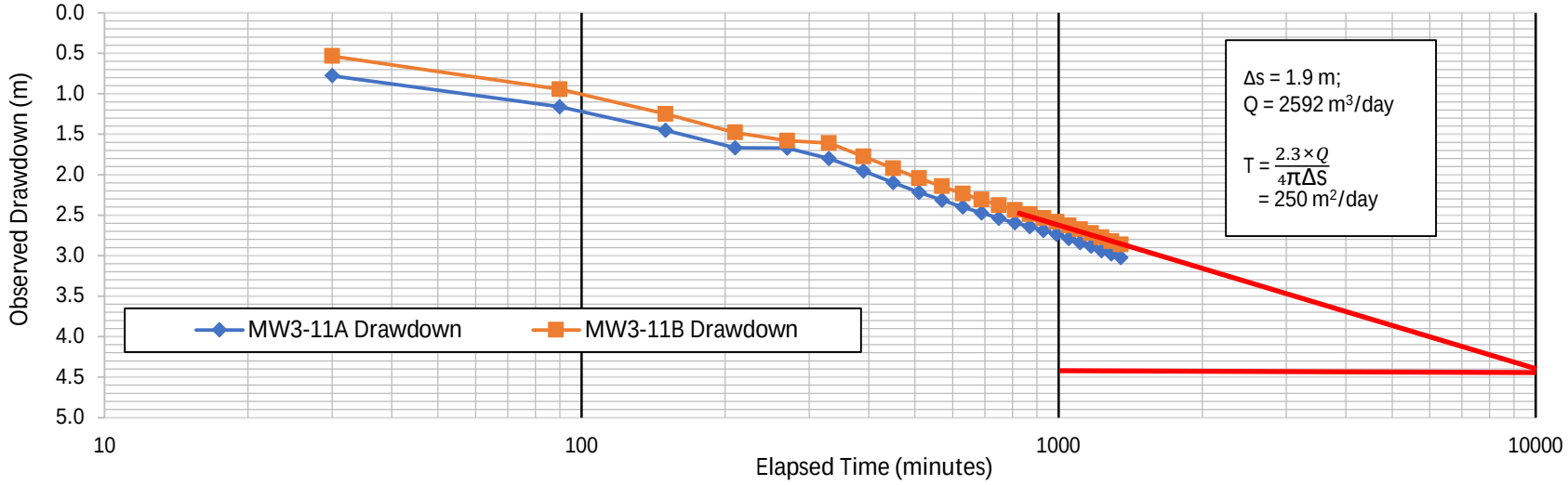
Transmissivity Estimates





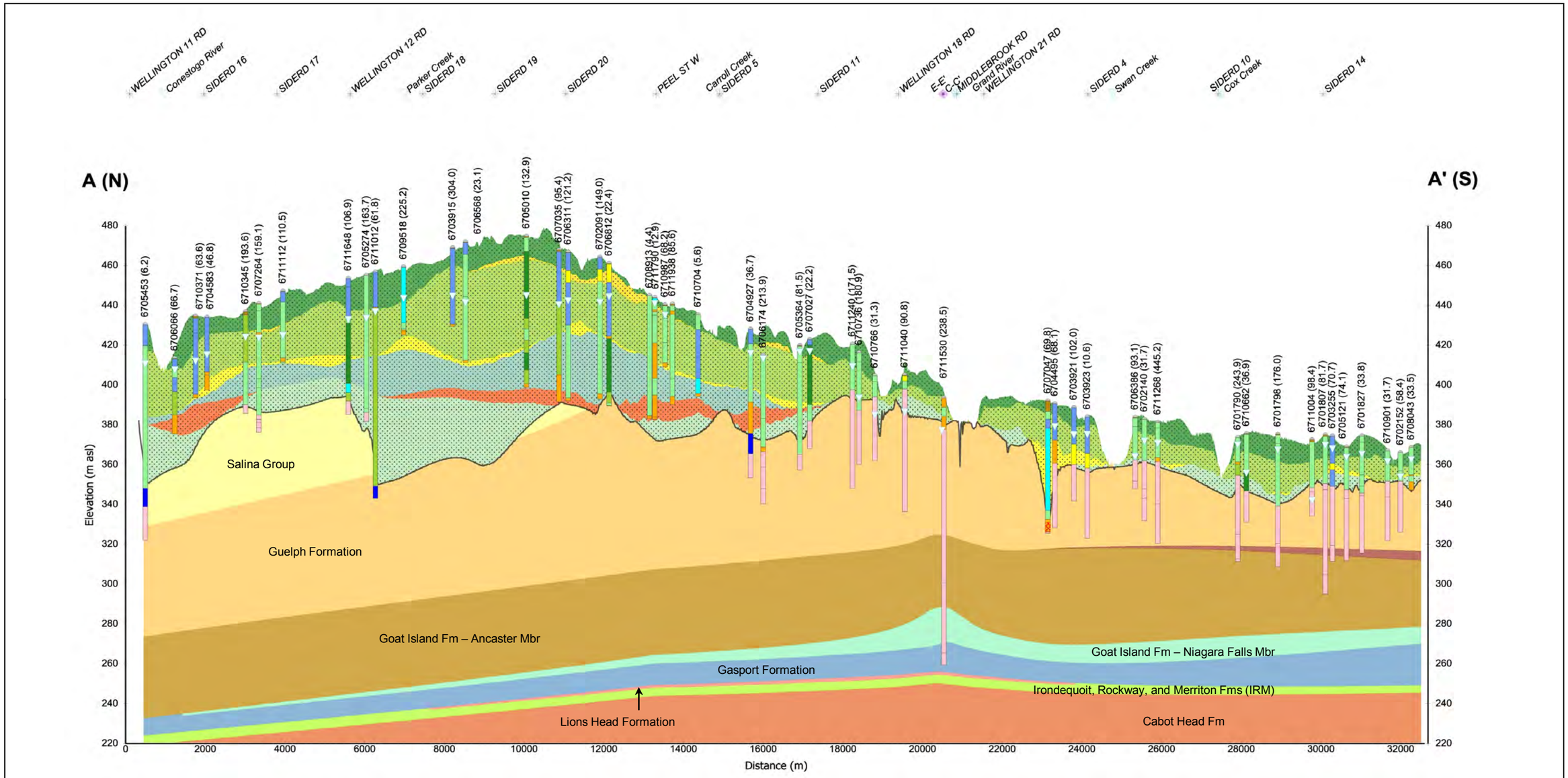
AECOM	**Well Drawdown Vs. Time - F2-R Pumping Test**	**February 2023**
		Figure F-1





AECOM	**Well Drawdown Vs. Time - F5-R Pumping Test**	**February 2023**
		Figure F-2

Appendix B. Tier 3 Regional Cross-Sections



LEGEND

- Road
- Drainage
- Observed Water Level
- Profile
- Top of Bedrock
- Screened Interval

Borehole Lithology

- Topsoil, fill
- Organic deposits
- Clay, silty clay
- Silt, clayey silt, sandy silt
- Clay to clayey silt till
- Silt to sandy silt till
- Sandy till
- Sand, silty sand
- Gravelly sand, gravel
- Limestone, Dolostone
- Shale

Interpreted Unit

- Grand River Outwash (AFA2)
- Tavistock, Port Stanley Till (ATB1)
- Moraine Aquifer (AFB1)
- Maryhill/ Catfish Creek Drift (ATB3, ATC1, AFC1, ATC2)
- Pre-Catfish Aquifer (AFD1)
- Canning Drift Aquitard (ATE1)
- Pre-Canning Aquifer (AFF1)
- PreCanning Aquitard (ATG1)

NOTE: Water levels for domestic wells are levels contained within the WWIS. Water levels for high quality wells are from recent, higher quality transient water level observations.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Grand River Conservation Authority
Centre Wellington Tier Three Water Budget and Local Area Risk Assessment

Regional Cross Section A-A'

Date:	Project:	Technical:	Reviewer:	Drawn:
08 Nov 2017	23876	J. Melchin	P. Meyer	C.Curry

Figure 11

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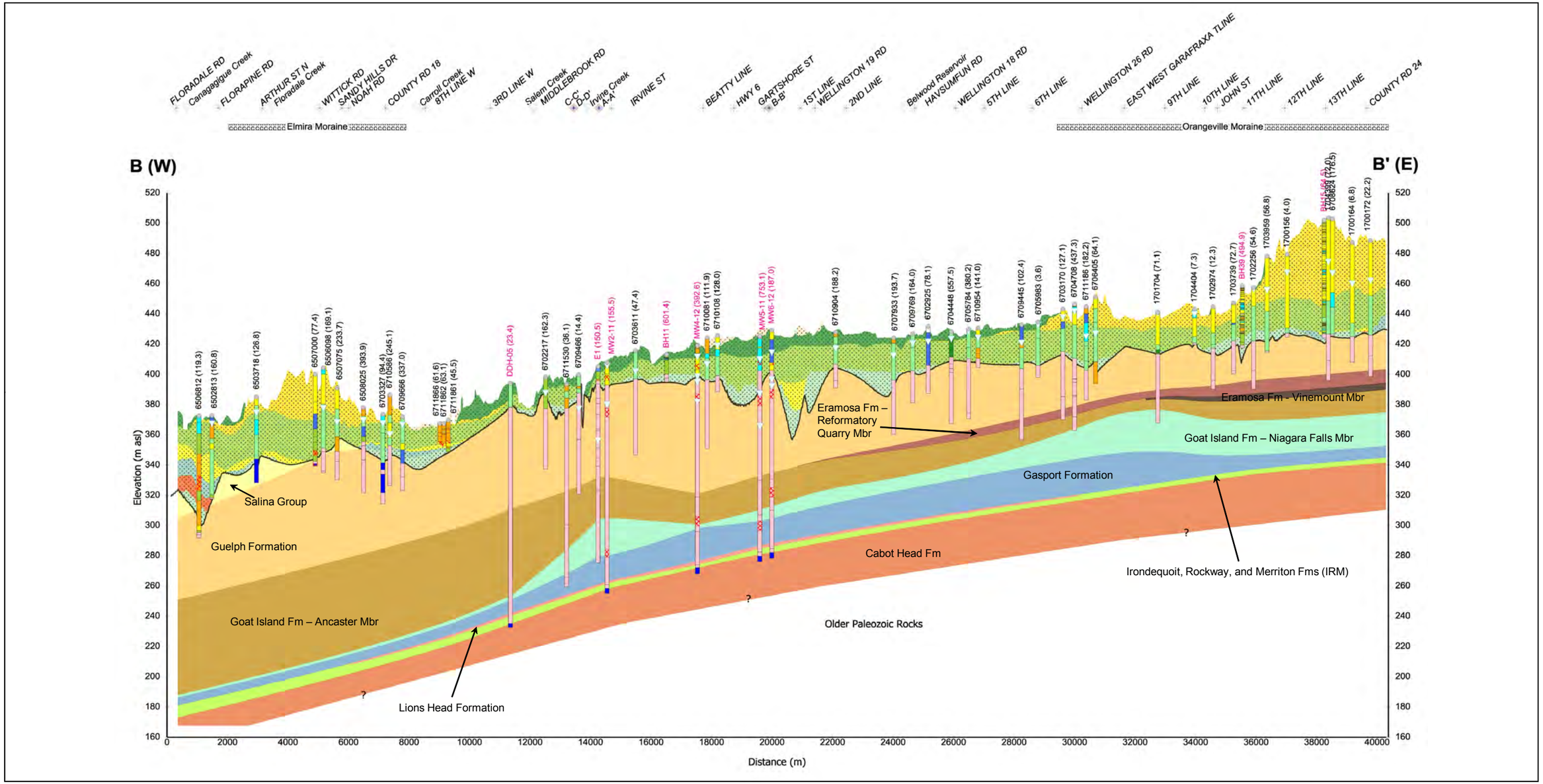


LEGEND

- Road
- Drainage
- Observed Water Level
- Profile
- Top of Bedrock
- Screened Interval

Borehole Lithology

- Topsoil, fill
- Organic deposits
- Clay, silty clay
- Silt, clayey silt, sandy silt
- Clay to clayey silt till
- Silt to sandy silt till
- Sandy till
- Sand, silty sand
- Gravelly sand, gravel
- Limestone, Dolostone
- Shale

Interpreted Unit

- Grand River Outwash (AFA2)
- Tavistock, Port Stanley Till (ATB1)
- Moraine Aquifer (AFB1)
- Maryhill/ Catfish Creek Drift (ATB3, ATC1, AFC1, ATC2)
- Pre-Catfish Aquifer (AFD1)
- Canning Drift Aquitard (ATE1)
- Pre-Canning Aquifer (AFF1)
- PreCanning Aquitard (ATG1)

NOTE: Water levels for domestic wells are levels contained within the WWIS. Water levels for high quality wells are from recent, higher quality transient water level observations.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

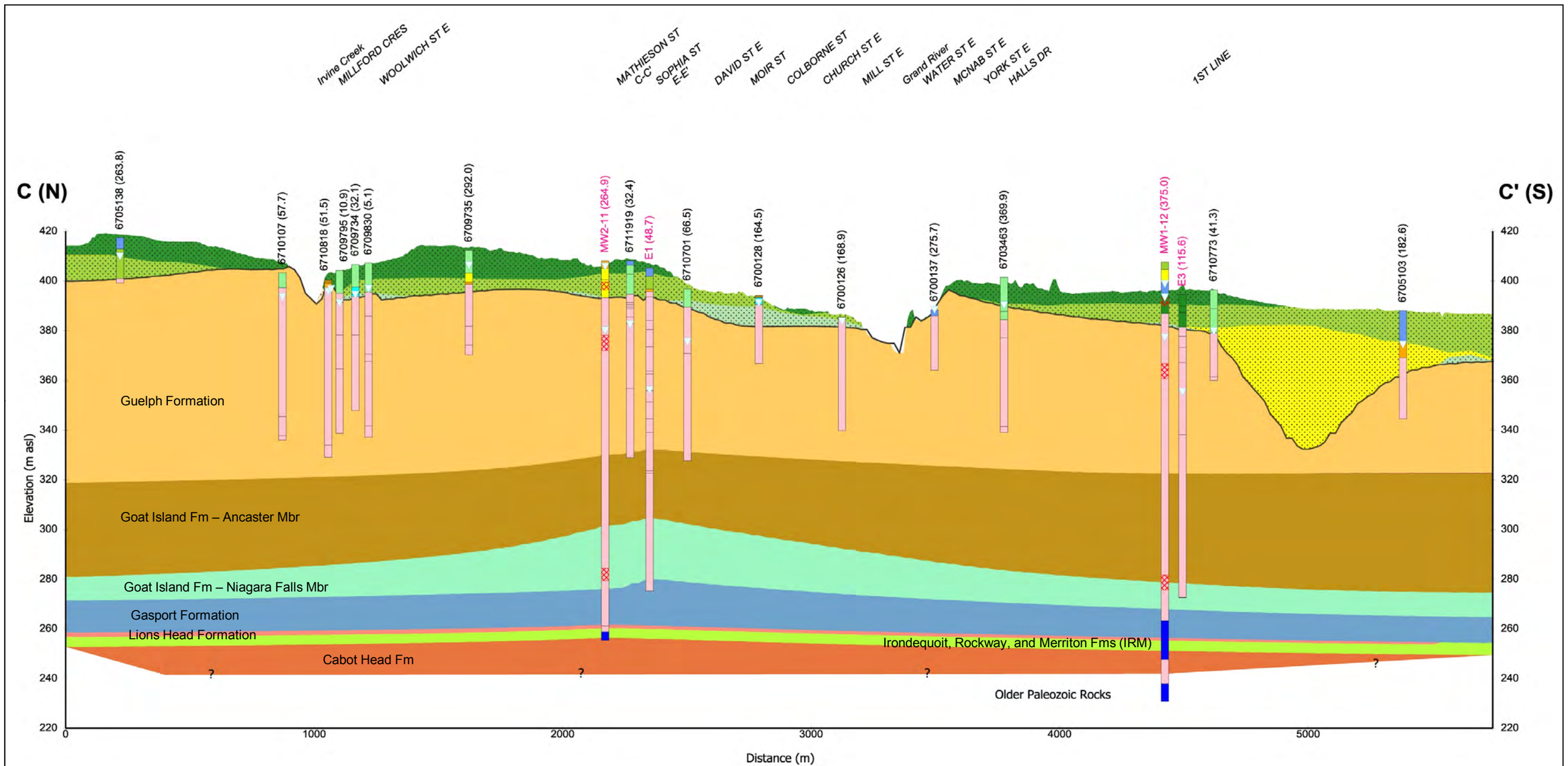
Grand River Conservation Authority
Centre Wellington Tier Three Water Budget and Local Area Risk Assessment

Regional Cross Section B-B'

Date:	Project:	Technical:	Reviewer:	Drawn:
08 Nov 2017	23876	J. Melchin	P. Meyer	C.Curry

Figure 12

I:\GrandRiverCA\23876\FiguresandTables\T3\2017\Report\CharacterizationReport\Figure-12-Regional_Cross_Section_B-B.mxd



LEGEND

- Road
- Drainage
- Observed Water Level
- Profile
- Top of Bedrock
- Screened Interval

Borehole Lithology

- Topsoil, fill
- Organic deposits
- Clay, silty clay
- Silt, clayey silt, sandy silt
- Clay to clayey silt till
- Silt to sandy silt till
- Sandy till
- Sand, silty sand
- Gravelly sand, gravel
- Limestone, Dolostone
- Shale

Interpreted Unit

- Grand River Outwash (AFA2)
- Tavistock, Port Stanley Till (ATB1)
- Moraine Aquifer (AFB1)
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- Pre-Catfish Aquifer (AFD1)
- Canning Drift Aquitard (ATE1)
- Pre-Canning Aquifer (AFF1)
- PreCanning Aquitard (ATG1)

NOTE: Water levels for domestic wells are levels contained within the WWIS. Water levels for high quality wells are from recent, higher quality transient water level observations.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Grand River Conservation Authority
Centre Wellington Tier Three Water Budget and Local Area Risk Assessment

Local Elora Cross Section C-C'

Date:	Project:	Technical:	Reviewer:	Drawn:
08 Nov 2017	23876	J. Melchin	P. Meyer	C.Curry

Figure 13

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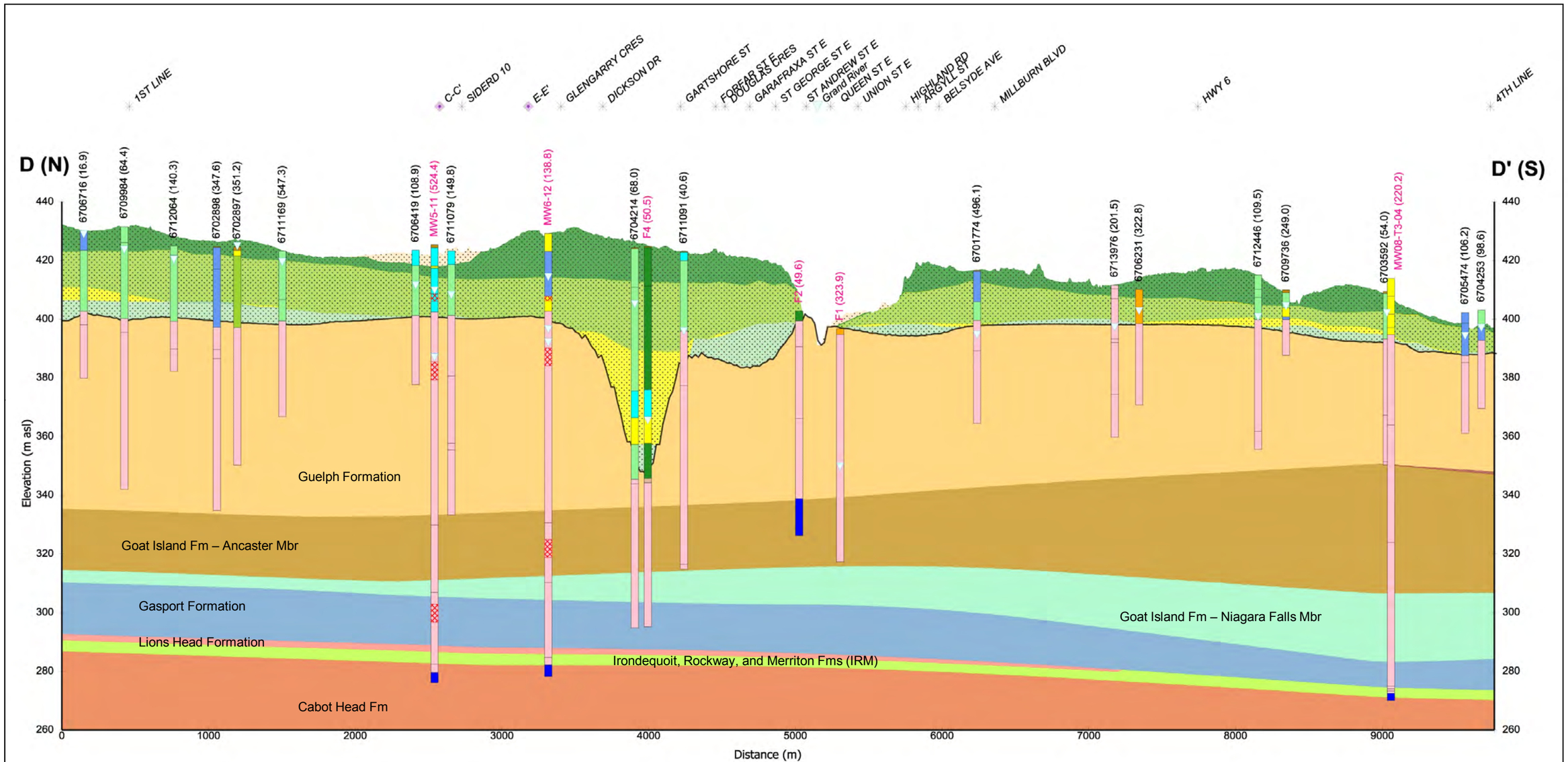

LEGEND

- Road
- Drainage
- Observed Water Level
- Profile
- Top of Bedrock
- Screened Interval

Borehole Lithology

- Topsoil, fill
- Organic deposits
- Clay, silty clay
- Silt, clayey silt, sandy silt
- Clay to clayey silt till
- Silt to sandy silt till
- Sandy till
- Sand, silty sand
- Gravelly sand, gravel
- Limestone, Dolostone
- Shale

Interpreted Unit

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- Tavistock, Port Stanley Till (ATB1)
- Moraine Aquifer (AFB1)
- Maryhill/ Catfish Creek Drift (ATB3, ATC1, AFC1, ATC2)
- Pre-Catfish Aquifer (AFD1)
- Canning Drift Aquitard (ATE1)
- Pre-Canning Aquifer (AFF1)
- PreCanning Aquitard (ATG1)

NOTE: Water levels for domestic wells are levels contained within the WWIS. Water levels for high quality wells are from recent, higher quality transient water level observations.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

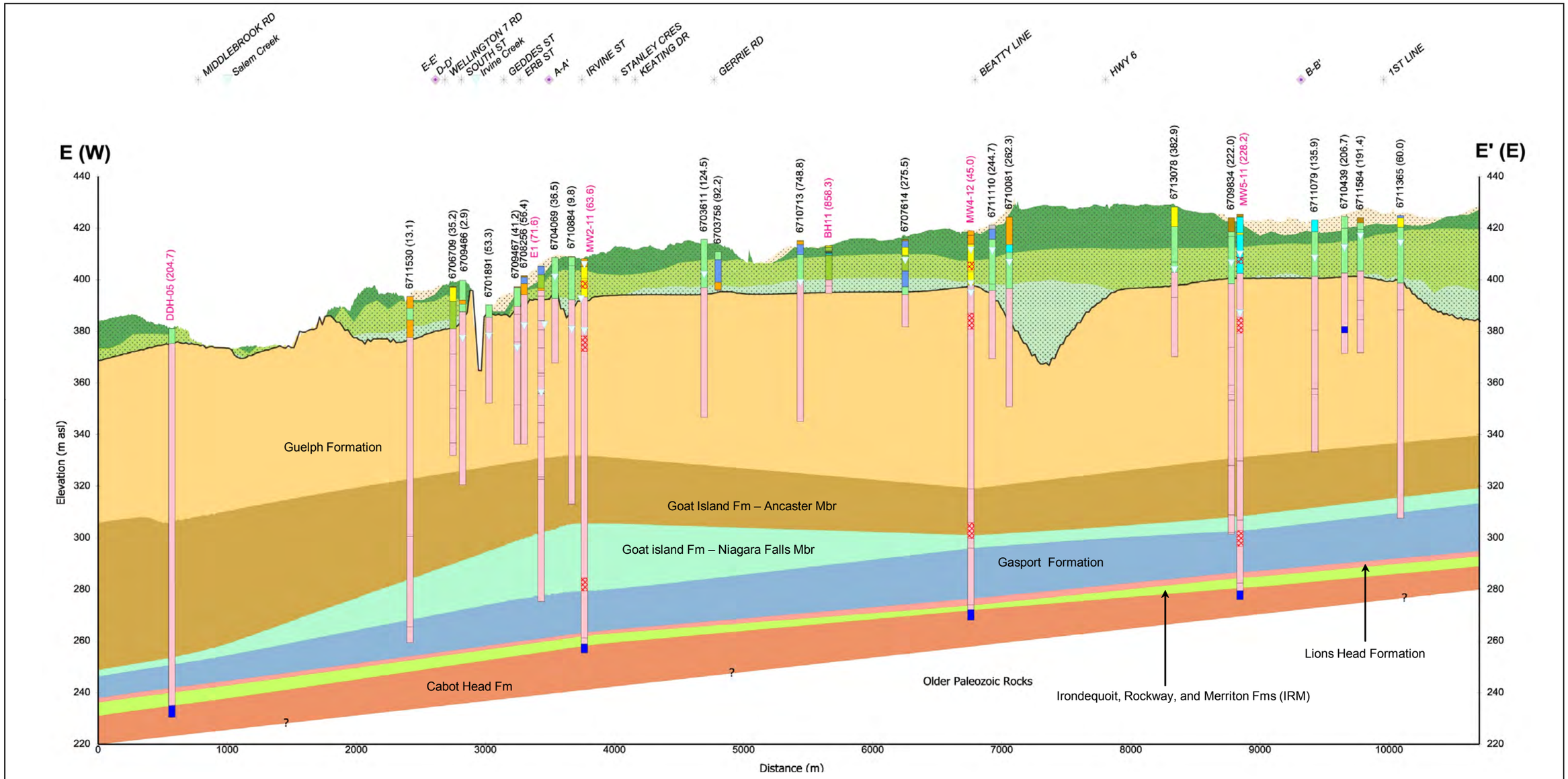
Grand River Conservation Authority
Centre Wellington Tier Three Water Budget and Local Area Risk Assessment

Local Fergus Cross Section D-D'

Date:	Project:	Technical:	Reviewer:	Drawn:
08 Nov 2017	23876	J. Melchin	P. Meyer	C.Curry

Figure 14

I:\GrandRiver\CA\23876\Figures\andTables\T3\2017\Report\Characterization\Report\Figure-14-Local_Fergus_Cross_Section_D-D.mxd



LEGEND

- Road
- Drainage
- Observed Water Level
- Profile
- Top of Bedrock
- Screened Interval

Borehole Lithology

- Topsoil, fill
- Organic deposits
- Clay, silty clay
- Silt, clayey silt, sandy silt
- Clay to clayey silt till
- Silt to sandy silt till
- Sandy till
- Sand, silty sand
- Gravelly sand, gravel
- Limestone, Dolostone
- Shale

Interpreted Unit

- Grand River Outwash (AFA2)
- Tavistock, Port Stanley Till (ATB1)
- Moraine Aquifer (AFB1)
- Maryhill/ Catfish Creek Drift (ATB3, ATC1, AFC1, ATC2)
- Pre-Catfish Aquifer (AFD1)
- Canning Drift Aquitard (ATE1)
- Pre-Canning Aquifer (AFF1)
- PreCanning Aquitard (ATG1)

NOTE: Water levels for domestic wells are levels contained within the WWIS. Water levels for high quality wells are from recent, higher quality transient water level observations.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Grand River Conservation Authority
Centre Wellington Tier Three Water Budget and Local Area Risk Assessment

Local Elora to Fergus Cross Section E-E'

Date:	Project:	Technical:	Reviewer:	Drawn:
08 Nov 2017	23876	J. Melchin	P. Meyer	C.Curry

Figure 15

I:\GrandRiver\CA\23876\FiguresandTables\T3\2017\Report\CharacterizationReport\Figure-15-Local_Elora_to_Fergus_Cross_Section_E-E.mxd

Appendix C. Private Well Notification Letters and Invitations to Monitoring Program

C.1 Notification Letter Provided to the Private Well Monitoring Program Participants Retained from the F2 & F5 Well Replacement Program

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, ON N2P 0A4
Canada

T: 519.650.5313
F: 519.650.3424
www.aecom.com

September 20, 2022

Project # 60692210

Dear Resident / Property Owner:

RE: Municipal Wellfield Capacity Assessment
Private Water Well Survey

The Township of Centre Wellington (the 'Township') has retained AECOM Canada Ltd. (AECOM) to conduct capacity testing at the Township supply wells, located in Fergus and Elora, Ontario (the "Project"). Your property was included in a private well monitoring program associated with the replacement of the F2 and F5 Wells, conducted in 2021/2022. The Township would like to continue monitoring your supply well during the upcoming testing, scheduled to occur in October 2022. The equipment would be removed in November, following the completion of testing. **If you do not want to participate in the monitoring program, please contact AECOM or the Township using the contact information below and we will arrange to remove the equipment that is currently installed in your well**. Your continued participation in the monitoring program is strictly voluntary.

For information on well construction, maintenance and water quality, please refer to the *Well Aware Guide* created by Green Communities Canada in partnership with the Ontario Groundwater Association (OGWA). This guide can be obtained at www.wellaware.ca.

Thank you for taking the time to consider continued participation in this program. Should you have any questions about this request, please do not hesitate to the undersigned at (226) 821-4906, or via email to Matthew.Alexander@aecom.com.

Sincerely,
Matthew Alexander, M.Sc., P.Geo.
Manager, Hydrogeology
AECOM
M +1-226-821-4906
matthew.alexander@aecom.com

cc: **Ryan Maiden, P.Eng.**
Water and Wastewater Capital Project Manager
Township of Centre Wellington
D +1-519-846-9691 x259
RMaiden@centrewellington.ca

C.2 Wellfield Capacity Assessment Monitoring Program Invitation Letter

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, ON N2P 0A4
Canada

T: 519.650.5313
F: 519.650.3424
www.aecom.com

September 20, 2022

Project # 60692210

Dear Resident / Property Owner:

RE: Municipal Wellfield Capacity Assessment
Private Water Well Monitoring

The Township of Centre Wellington (the 'Township') has retained AECOM Canada Ltd. (AECOM) to conduct capacity testing at the Township water supply wells, located in Fergus and Elora, Ontario (the "Project"). As part of the Project, AECOM is undertaking a Water Well Survey to document current water well use in the area surrounding each municipal well property, prior to the outset of testing.

Your participation in the survey is strictly voluntary. Attached to this letter you will find a blank survey form. It would be greatly appreciated if you could please complete the survey to the best of your knowledge, and return it to AECOM either by letter mail using the provided self-addressed and stamped envelope, or electronically by email to Matthew.Alexander@aecom.com. Page 2 of the letter provides the option to have water levels in your well monitored by AECOM. Please fill out and sign this section if you would like to be included in the monitoring program. Should you have any questions, concerns, or require assistance filling out the survey form, please contact the undersigned at the telephone number and/or email address provided and we will be pleased to assist you.

To be included in the monitoring program, it is kindly requested that the completed form be returned, either by letter mail or e-mail, on or before September 30th, 2022.

For information on well construction, maintenance and water quality, please refer to the *Well Aware Guide* created by Green Communities Canada in partnership with the Ontario Groundwater Association (OGWA). This guide can be obtained at www.wellaware.ca.

Thank you for taking the time to consider participation in this program. Should you have any questions regarding the survey, please do not hesitate to the undersigned at (226) 821-4906, or via email to Matthew.Alexander@aecom.com.

Sincerely,

Matthew Alexander, M.Sc., P.Geo.
Manager, Hydrogeology
AECOM
M +1-226-821-4906
matthew.alexander@aecom.com

cc: **Ryan Maiden, P.Eng.**
Water and Wastewater Capital Project Manager
Township of Centre Wellington
D +1-519-846-9691 x259
RMaiden@centrewellington.ca

Water Well Survey

Well #: _____

MECP #: _____

AECOM 290-50 Sportsworld Crossing Road, Kitchener, Ontario N2P 0A4 (519) 650-5313

Well Owner:

Name: _____ **Telephone (Bus.):** ( ) _____

Address: _____ **(Home):** ( ) _____

Person Interviewed: _____

Date: _____ **Time:** _____ **Interviewed By:** _____

Name of Original Well Owner: *(if different from above)* _____

Occupant of House Served by Well: *(if other than owner)*

Name: _____ **Telephone (Bus.):** ( ) _____

Address: _____ **(Home):** ( ) _____

Well Location:

Lot: _____ **Concession:** _____ **Township:** _____

Test Area: *(to be completed by AECOM Staff)* _____

Well Construction Details:

Date Constructed: _____ **Stick Up:** _____ **Material:** _____

Type (drilled or dug): _____ **Diameter:** _____ **Well Depth:** _____

Well location in a well pit: _____ **Well pit depth:** _____ **Stick up above bottom of pit:** _____

Is Well flowing: _____ **Rate:** _____ **Contractor:** _____

Well Cap Type: _____ **Does the cap create a good seal:** _____ **Is the wire conduit tight to the wall cap:** _____

Is well accessible for direct sampling? _____ **or buried:** _____

Screen: **Yes** _____ **No** _____ **If Yes, length:** _____ **m** **Depth of top of screen:** _____ **m**

Pumping Equipment:

Pump Type: *Jet Pump:* _____ *Submersible:* _____ **Pumping Capacity:** _____ **Age:** _____

Horsepower: _____

Other Pump Type: _____

Depth of Intake Setting: _____ **m** *(Original)* _____ **m** *(Present)* **Pumping Rate:** _____ **L/s**

Pressure Tank: *Type:* _____ *Capacity:* _____

Do you have a: *Chlorinator:* _____ *Water Softener:* _____ *Water Filter:* _____ *Filter Type:* _____

U.V. _____ *R.O.* _____ *Other* _____

Water Use: *Domestic:* *No:*_____ *Yes:*_____ *No. of persons using water from well:*_____

Livestock: *No:*_____ *Yes:*_____ *No. of livestock watered from well:*_____

Lawn Watering: *No:*_____ *Yes:*_____ *Other:*_____ *Amount:*_____

Equipment: *Indoor plumbing (e.g., shower, automatic washer, pool, sauna, etc.)* _____

_____

Private Waste and Water Disposal: *Type (septic tank, etc.):*_____ *Distance to Well:*_____

Well is: *1) Uphill* _____ *2) Downhill:* _____ *3) Same Grade* _____

Previous Problems:

How long have you owned, operated or lived on this property? _____

Have you ever experienced any <u>previous</u> problems with your well or water? _____

If so, when?

What was the cause of the previous problem? *Drought:*_____ *Pump Failure:*_____ *Plugging:*_____

Increased Usage _____ *Interference:*_____ *Contamination:*_____

Other(describe) _____

_____

Determine type of problem (*to be completed by AECOM staff)* *Water Quantity* ❑ *Water Quality* ❑

(Note any differences in taste, odour, colour or clarity)

If the problem was contamination what changes were apparent to water quality? _____

_____

Were there any effects of this problem? _____

What action was taken to overcome this problem? _____

_____

Did you ever have your well deepened _____**, or cleaned** _____**, or a new well constructed** _____**?**

If so, why? _____

_____

Outline briefly any previous repairs or changes in pumping equipment, and dates:

_____

_____

Homeowner Participation in Monitoring Program

Does homeowner grant permission for the Township to monitor the well? **Yes** ❑ **No** ❑

Name (Please Print in BLOCK letters): _____

Signature: _____ **Date:** _____

The following sections are to be completed by AECOM Staff

Location Sketch *(to be completed by AECOM Staff)*

N

Field Visit *(to be completed by AECOM staff)*

Description of Well Condition: _____

_____

Is there a depression around the well? ***Yes*** ❑ ***No*** ❑ **Photo Number:**

Easting: _____ **Northing:** _____ **Datum:** _____

Water Level: _____ **Stick up:** _____ **Date and Time:** _____

Reference Point *(Indicate whether water level measured from ground level or from top of casing):*

Water Quality Sample Taken: ***Yes*** ❑ ***No*** ❑ *If yes, continue below.*

Parameters sampled for: _____

Sample Name: _____ **Data/Time sample taken:** _____ **Number of Bottles:** _____

Water Quality Parameters (*record units)*

Turbidity: _____ **pH:** _____

Conductivity: _____ **Other:** _____

Appearance/Odour _____

C.3 General Wellfield Capacity Assessment Notification Letter

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, ON N2P 0A4
Canada

T: 519.650.5313
F: 519.650.3424
www.aecom.com

September 19, 2022

Project # 60692210

Dear Resident / Property Owner:

RE: Municipal Wellfield Capacity Assessment

The Township of Centre Wellington (the 'Township') has retained AECOM Canada Ltd. (AECOM) to conduct capacity testing at the Township water supply wells, located in Fergus and Elora, Ontario (the "Project"). The project includes test pumping of the Township water supply wells to assess the quantity of water available from these wells long term. In advance of this testing, AECOM is notifying well owners within 500 m of the Project. Township records indicate that a private well is located on your property.

The testing is scheduled to occur in October and November 2022. If you experience an issue with the normal use of your well during the test period, please contact Matthew Alexander (AECOM) at (226) 821-4906, or Ryan Maiden (Township of Centre Wellington) at (519) 846-9691 extension 259.

For information on well construction, maintenance and water quality, please refer to the *Well Aware Guide* created by Green Communities Canada in partnership with the Ontario Groundwater Association (OGWA). This guide can be obtained at www.wellaware.ca.

Should you have any questions regarding the program, please do not hesitate to the undersigned at (226) 821-4906, or via email to Matthew.Alexander@aecom.com.

Sincerely,

Matthew Alexander, M.Sc., P.Geo.
Manager, Hydrogeology
AECOM
1-226-821-4906
matthew.alexander@aecom.com

cc: **Ryan Maiden, P.Eng.**
Water and Wastewater Capital Project Manager
Township of Centre Wellington
D +1-519-846-9691 x259
RMaiden@centrewellington.ca

Appendix D. Monitoring Network Summary Table

Appendix D: Township Groundwater Monitoring Network Summary

Well Name	Well Type	Associated Production Well	Completion Formation	Ground Surface Elevation (mASL)	Top of Screen (mbgs)	Bottom of Screen or Well Depth (mbgs)	Monitoring Frequency	Party Conducting Monitoring	Notes
MW1-12A*	Municipal Multi-Level Monitoring Well	E3	Goat Island (Ancaster/Niagara Falls member)	407.53	125.9	132	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW1-12B*			Guelph	407.53	40.8	46.9	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW1-12C*			Overburden (gravelly CLAY)	407.64	14.4	17.4	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW2-11A*	Municipal Multi-Level Monitoring Well	E1	Goat Island (Niagara Falls member)	408	123.7	128.7	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW2-11B*			Guelph	408	29.9	36	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW2-11C*			Overburden (silty SAND)	407.91	8.5	11.6	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW3-11A	Municipal Multi-Level Monitoring Well	F5-R	Goat Island (Niagara Falls member)	425.6	115.8	121.9	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW3-11B			Guelph	425.6	43	49.1	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW3-11C			Overburden (sandy SILT)	425.77	21.2	24.2	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW4-12A	Municipal Multi-Level Monitoring Well	F7	Goat Island (Ancaster member)	418.86	113.1	119.2	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW4-12B			Guelph	418.86	32	38.1	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW4-12C			Overburden (silty SAND)	418.84	12.2	15.2	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW5-11A	Municipal Multi-Level Monitoring Well	F6	Gasport	425.35	122.5	128.6	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW5-11B			Guelph	425.35	39.9	46	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW5-18C			Overburden (sandy SILT)	425.14	16.8	19.2	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW6-12A	Municipal Multi-Level Monitoring Well	F4, F6	Goat Island (Ancaster member)	429.17	104.2	110.3	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW6-12B			Guelph	429.17	39	45.1	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW6-12C			Overburden (silty SAND)	429	21.3	22.9	Hourly	Groundwater Science Corp./ AECOM	Instrumented with transducer/ datalogger
MW7-21D	Municipal Multi-Level Monitoring Well	F1, F2-R	Gasport	399.25	104.7	107.7	Hourly	AECOM	Instrumented with transducer/ datalogger
MW7-21I			Goat Island	399.28	83.2	86.2	Hourly	AECOM	Instrumented with transducer/ datalogger
MW7-21S			Guelph	399.28	21.4	24.5	Hourly	AECOM	Instrumented with transducer/ datalogger
MW8-21	Future Municipal Monitoring Well	F1	Guelph Formation Goat Island Formation	-	-	37.3	Hourly	AECOM	Instrumented with transducers/ dataloggers above and below packer located at 16.3 mbgs
Well 14*	Private Well	E3	Unknown	-	-	36.6 (est. depth)^	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducer/ datalogger
Well 15*	Municipal Monitoring Well	E3, E4	Unknown	-	-	44.8^	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducer/ datalogger
Well 17*	Municipal Monitoring Well	E4	Unknown	385.2	-	61.0^	Hourly	AECOM	Instrumented with transducer/ datalogger
Well 19*	GRCA Supply Well	E4	Unknown	370.50$^{\Delta}$	-	97.5^	Hourly	Groundwater Science Corp.	Instrumented with transducer/ datalogger
Well 21	Private Well	E1	Unknown	-	-	-	Hourly	AECOM	Instrumented with transducer/ datalogger
Well 28	Private Well	F5-R	Unknown	-	-	>61 (est. depth)^	Fifteen Minutes	AECOM	Instrumented with transducer/ datalogger
Well 29	Private Well	F2-R, F5-R	Unknown	-	-	54.9 (est. depth)^	Hourly	AECOM	No transducer/datalogger. Manual readings only.
Well 31	Private Well	F4, F6, F7	Unknown	-	-	-	Hourly	AECOM	Instrumented with transducer/ datalogger
Well 33	Private Well	F2-R	Unknown	-	8.5‡	42.7‡	Hourly	AECOM	Instrumented with transducer/ datalogger
Well 34*	Private Well	E1	Multiple$^{\Omega}$	-	-	158.5‡	Hourly	Owner	Instrumented with transducer/ datalogger
Well 36	Private Well	F2	Bedrock	-	-	-	Fifteen Minutes	AECOM	Instrumented with transducer/ datalogger
Well 37	Private Well	F2	Bedrock	-	-	-	Fifteen Minutes	AECOM	Instrumented with transducer/ datalogger
Well 38	Private Well	F2	Bedrock	-	7.3‡	19.5‡	Fifteen Minutes	AECOM	Instrumented with transducer/ datalogger
Well 39	Private Well	E1, E4	Unknown	-	-	-	Hourly	Owner	Instrumented with transducer/ datalogger
Well 40*	Private Well	E3, E4 (additional Elora test exclusively)	Bedrock	-	21	61	Five Minutes	AECOM	Instrumented with transducer/ datalogger
Well 43*	Private Well	E1	Unknown	-	-	-	Five Minutes	AECOM	Instrumented with transducer/ datalogger
MW1-22	Monitoring Well	F7	Bedrock	-	19.9	155.8	Hourly	AECOM	Open bedrock coreholes drilled by the Township in 2022. Cased through overburden and drilled to the base of the Gasport Formation. Instrumented with transducer/ datalogger.
MW2-22*	Monitoring Well	E1	Bedrock	-	49.1	173.9	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Open bedrock coreholes drilled by the Township in 2022. Cased through overburden and drilled to the base of the Gasport Formation. Instrumented with transducer/ datalogger.
MW3-22*	Monitoring Well	E1, F7	Bedrock	-	37.3	161.9	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Open bedrock coreholes drilled by the Township in 2022. Cased through overburden and drilled to the base of the Gasport Formation. Instrumented with transducer/ datalogger.
ELR1-R1	Research Monitoring Well	E3, E4	Ancaster Gasport Rockway Merriton	377.54	57	130	Hourly	University of Guelph	Borehole cased into bedrock and instrumented with transducer/ datalogger

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Well Name	Well Type	Associated Production Well	Completion Formation	Ground Surface Elevation (mASL)	Top of Screen (mbgs)	Bottom of Screen or Well Depth (mbgs)	Monitoring Frequency	Party Conducting Monitoring	Notes
ELR1-R2*	Research Monitoring Well	E3, E4	Wellington Ancaster Gasport Irondequoit Rockway Merriton Cabot Head	379.61	29	132	10 mins	University of Guelph	Borehole cased into bedrock and instrumented with transducer/ datalogger
ELR2-R1	Research Monitoring Well	E3, E4	Niagara Falls Gasport Irondequoit Rockway Merriton Cabot Head	402.49	85	139	10 mins	University of Guelph	Borehole cased into bedrock and instrumented with transducer/ datalogger
ELR2-R2*	Research Monitoring Well	E3, E4	Hanlon Wellington Niagara Falls Gasport Irondequoit Rockway Merriton Cabot Head	402.01	19	142	10 mins	University of Guelph	Borehole cased into bedrock and instrumented with transducer/ datalogger
MS24A-94S	A.O. Smith Monitoring Well	F1, F7	Guelph	414.02	36.7	39.6	Hourly	AECOM	Instrumented with transducer/ datalogger
MS46A-00S	A.O. Smith Monitoring Well	F1, F7	Guelph	413.86	29.3	32.3	Hourly	AECOM	Instrumented with transducer/ datalogger
MS46A-00I	A.O. Smith Monitoring Well	F1, F7	Guelph	413.86	46.7	49.7	Hourly	AECOM	Instrumented with transducer/ datalogger
MS47A-01S	A.O. Smith Monitoring Well	F1, F7	Guelph	414.6	32	35.1	Hourly	AECOM	Instrumented with transducer/ datalogger
MS47A-01I	A.O. Smith Monitoring Well	F1, F7	Guelph	414.6	48.8	51.9	Hourly	AECOM	Instrumented with transducer/ datalogger
Swan 1*	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.7	1	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducers/ dataloggers
Swan 2*	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.8	1.1	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducers/ dataloggers
Swan 3*	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.6	0.9	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducers/ dataloggers
Irvine 1	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.2	0.5	Hourly	AECOM	Instrumented with transducers/ dataloggers
Irvine 2	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.7	1	Hourly	AECOM	Instrumented with transducers/ dataloggers
Irvine 3*	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.8	1.1	Hourly; Five Minutes (additional Elora testing exclusively)	AECOM	Instrumented with transducers/ dataloggers
Irvine 4	Municipal Drive-Point Piezo	All production wells	Overburden	-	0.8	1.1	Hourly	AECOM	Instrumented with transducers/ dataloggers

Notes:

^ *– Well depth or estimated well depth.*

Ω *– Open hole bedrock well likely open to Goat Island/Gasport FMs based on depth and Bedrock Materials described on well record.*

‡ *– Well depth as shown on MECP well record.*

* *– Well was monitored during additional Elora test.*

Δ *– Approximate elevation.*