

Air Force Installation & Mission Support Center



Wurtsmith Restoration Advisory Board Meeting

21 April 2021
AFCEC/CIB

Your Success is Our Mission!



Checklist for Virtual Participation

- ✓ If you prefer to join audio by phone, please dial the call in number and enter the access code and audio PIN number to enter the meeting. Click the microphone icon on the dialogue box and a drop down menu will give you the option for “computer” or “phone call”. Select “phone call” to enter the meeting.
- ✓ RAB Members – mute when not speaking and turn on your video camera if you are able.
- ✓ If necessary, rename yourself by hovering over your name in the “attendees” tab and providing your first and last name
- ✓ Use attendees tools to raise your hand
- ✓ To enable closed captions for language support, use toolbar button
- ✓ Contact the RAB Coordinator with access questions
rabcoordinator@aerostar.net



Agenda

- **Welcome and introduction**
- **Stakeholder and RAB member updates**
- **RAB business update**
- **MMRP Awareness Training**
- **Remedial investigation (RI) and interim remedial actions (IRAs) status**
- **Conceptual Site Model Summary**
- **RAB and public questions/Public comment**
- **Conclusion – RAB Co-Chairs' closing remarks**



RAB Rules

- | | |
|-----------|--|
| 01 | Respect one another and maintain an atmosphere of open dialogue and exchange of ideas |
| 02 | Use our time together efficiently, wisely and respectfully |
| 03 | Speak clearly and succinctly one person at a time; avoid interrupting others |
| 04 | Listen and remain open to different points of view |
| 05 | Maintain a propensity for progress: prepare, discuss, document and move forward |
| 06 | Share information early, openly and honestly |
| 07 | Accurately and objectively relay to others the discussions that occur at board meetings |



Welcome and Introductions

■ Public comment procedure

- To indicate that you'd like to make public comment, please chat the host or email Tim Sueltenfuss tim@galendriscol.com
- 3 minutes per person

■ RAB participation

- Indicate you'd like to speak by clicking the blue hand icon
- Please wait to be called on by the moderator
- Please provide your name before you begin your question or comment
- Be patient and kind please

■ Email tech questions to: rabcoordinator@aerostar.net



Former Wurtsmith AFB RAB



Stakeholder Updates



Air Force Update

■ Fieldwork Update



SS57



FT02

Pump and Treat
Systems: FT02,
CTS and MPTS

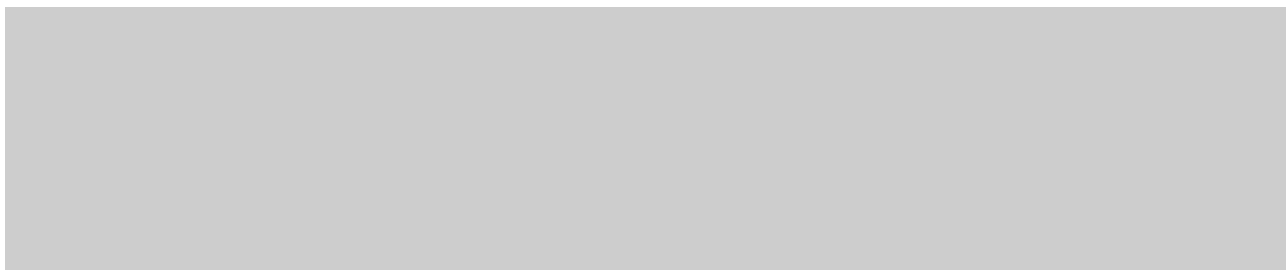




Stakeholder Updates

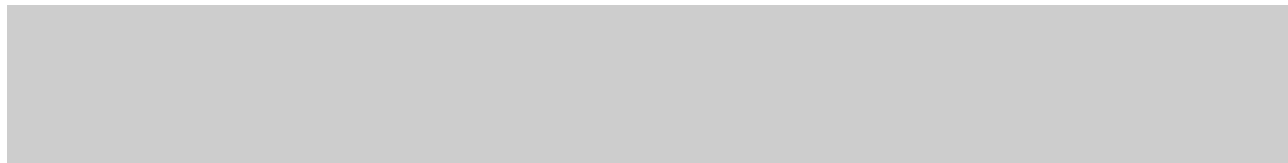


Community
RAB Members





Stakeholder Updates





Former Wurtsmith AFB RAB



RAB Business

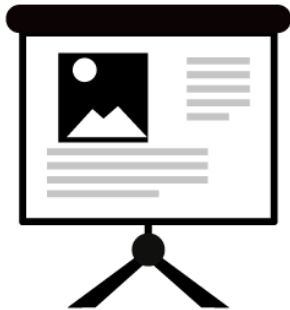


RAB Business

■ Action Item Review



Former Wurtsmith AFB RAB



Presentation:

MMRP Awareness

Kevin Nicholas

Lead UXO Field Manager

21 April 2021

Munitions Are Dangerous

Follow the 3Rs of
Explosives Safety

- **R**ecognize - when you may have encountered a munition.
- **R**etreat - do not touch, move or disturb it, but carefully leave the area.
- **R**eport - call 911!

What are Munitions?

Munitions include:



Artillery
& Mortar
Rounds

Grenades



Bombs



Small Arms Ammunition



What are UXO?

What are Unexploded Ordnance?

- Munitions (ammo) that failed to function properly;
- Can be of any type;
- May just be a component of a munition (e.g., fuze or exposed explosive fill).



Some Munitions are Hard to Identify

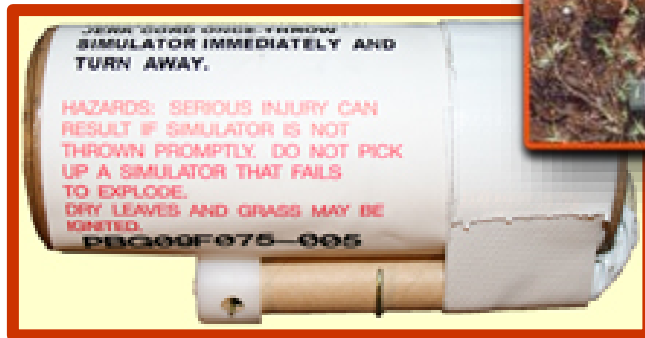
Explosives may be encountered anywhere on an installation from previous military training.



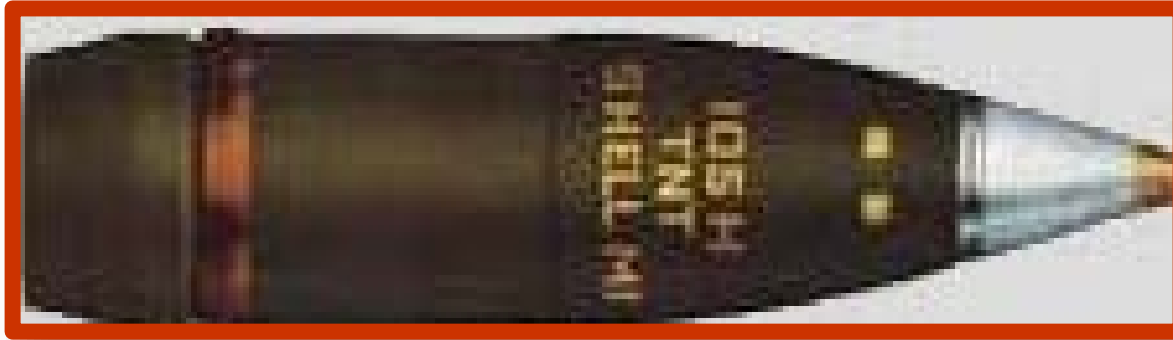
Munitions Vary in Appearance

Munitions are dangerous regardless of appearance:

- ▶ Mmunition type, shape, size, age, or condition doesn't matter.
- ▶ Flares, simulators, and blasting caps are all dangerous.
- ▶ War souvenirs can be dangerous.



Artillery Projectile



New



Used

Rockets

New



Used



Recent Munitions Accidents

Men Ignored Warning Signs on Fort Bragg

Two people injured following projectile explosion at McGregor Range

By Adriana M. Chavez / El Paso Times
POSTED: 10/12/2013 12:24:17 AM MDT

Two civilians were injured Thursday evening at Fort Bliss' McGregor Range following a projectile explosion, Fort Bliss officials said today. Fort Bliss spokesman Maj. Joe Buccino said military police are currently investigating the incident, which took place about 6 p.m. Thursday. The civilians were airlifted to University Medical Center in El Paso for treatment.

Airman dies in an accident at White Sands

Gulfport man admits to taking explosives from Camp Shelby

Posted: Feb 03, 2012 6:52 PM EST
Updated: Feb 03, 2012 7:05 PM EST

By Karrie Leggett-Brown, Reporter



CAMP SHELBY, MS (WDAM) - One of the four men arrested in the investigation of stolen military grade ammunition says he has been going to Camp Shelby to collect projectiles for scrap for 25 years.

This comes after the four men from Gulfport were arrested by federal agents after finding some military grade ammunition. According to the testimony of a federal agent, the men went to Camp Shelby to obtain the explosive devices along with the man who was injured January 19th when a shell exploded.

One of the men, Jimmy Wilson showed federal agents a hole he cut in a fence at Camp Shelby to drive trucks through to pick up the rounds. According to a published source, bond was denied for Wilson and David Bangs, the evidence shows they exhibited reckless disregard for the safety of others.

Retired Lieutenant Colonel Tim Powell says with military bases being as large as thousands of acres, it is hard to keep constant watch, but with ample signage there is no reason for the public to be unaware of the dangers military impact areas pose.

"Beyond that regulatory guidance. We place more signage than is required to let them know the dangers of when we have had some public campaigns to let the public know the dangers of when an unexploded ordnance on places like the impact area and other places on Camp Shelby or any other installation where they may be a firing range or an impact area," said Powell.

Wilson's statements in court, Camp Shelby officials say they were unaware of any of their fences.

Examples of Warning Signs

Trespassing on areas with warning signs or gates:

- ▶ may result in injury or death.
- ▶ is hazardous and prohibited by law.
- ▶ may result in substantial fines.



What to Do if You Encounter Munitions

- **Recognize** that munitions are dangerous

Munitions may:

- ▶ not look like a bullet or bomb.
- ▶ look harmless, but they are dangerous.
- ▶ be shiny or rusty.
- ▶ be clean or dirty.

Regardless of whether a munition has been moved, it may still explode. In fact, used munitions can be more dangerous than new.

What to Do if You Encounter Munitions

Retreat

- ▶ Do not approach, touch, move, or disturb; carefully leave area the same way you entered.
- ▶ In remote surroundings, mark general area where you encountered a munition so local authorities can locate. DO NOT go closer to munition when marking.

Report what you saw and where you saw it.

- ▶ Call 911
- ▶ Authorities will clear area and contact trained Explosives Ordnance Disposal (EOD) personnel to dispose of items.



DENIX Resources



What Is DENIX?

The DoD Environment, Safety & Occupational Health Network and Information Exchange (DENIX) is a collaborative cloud platform used to share and report DoD-specific environment, safety & occupational health (ESOH) information with the public and DOD communities.

3Rs Explosives Safety Education Program website:

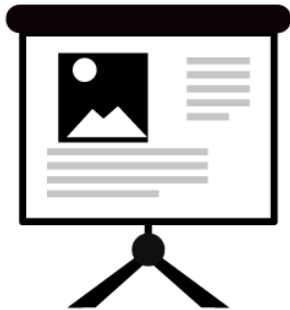
<https://www.denix.osd.mil/uxo/?p=home>

Resources

Coloring Books	Fact Sheets	Foreign Language Translations	Logos
Magnets	Pocket Cards	Posters	Presentations
Safety Guides	Signs	Site Specific Education Resources	Stickers
Temporary Tattoos	Videos		



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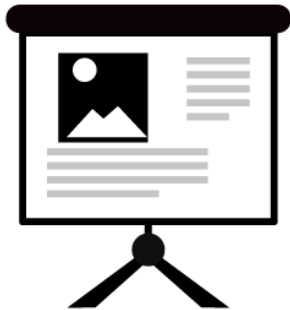
Questions?



Former Wurtsmith AFB RAB



Presentation:



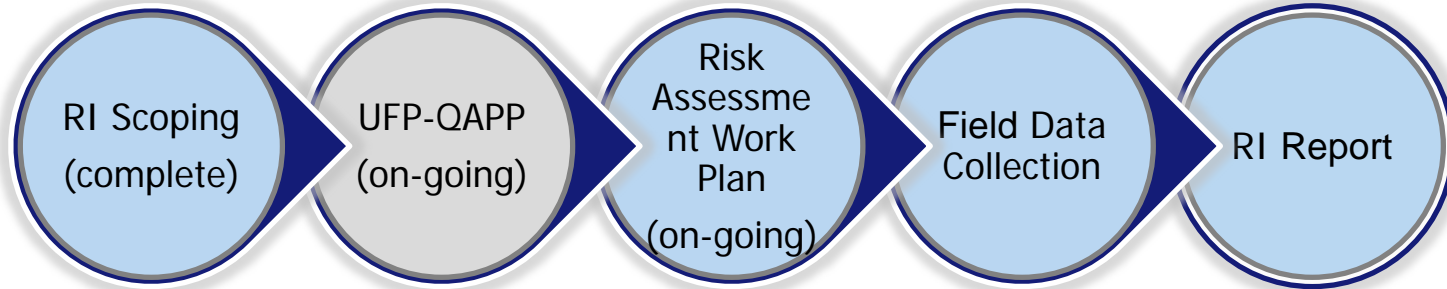
USAF Remedial Investigation and Interim Remedial Action Update

Paula Bond
Project Manager
21 April 2021



RI and IRA Updates

RI CERCLA Process



IRA CERCLA Process





RI Update

- **RI Work Plan (Uniform Federal Policy- Quality Assurance Project Plan)**
 - Draft provided to EGLE for review on April 6
 - Comments to be provided to AFCEC by May 15
- **Began preparation for field activities**



IRA Update – Proposed Plans

■ Proposed Plan

- Van Etten Lake proposed plan
 - Public comment period: TBD
 - Virtual public meeting: TBD

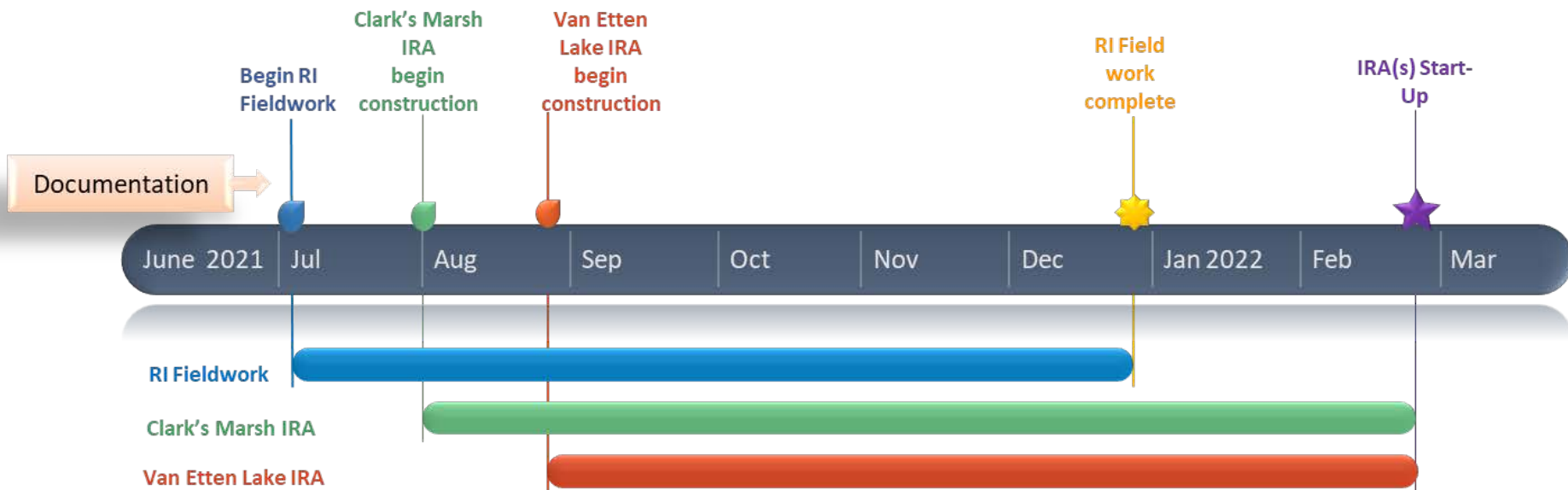
■ Record Of Decision

- Clark's Marsh
 - Reviewing public comments



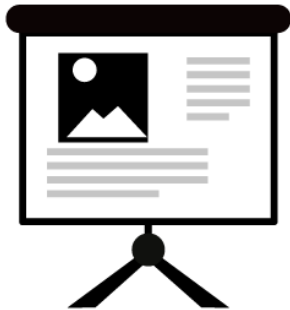
Field Schedule

RI and IRA Field Work Timeline

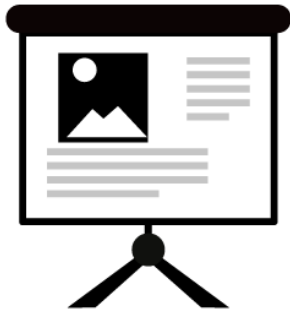




Former Wurtsmith AFB RAB



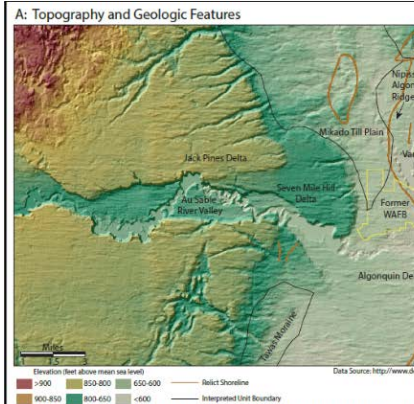
Questions?



Presentation: Conceptual Site Model

Colin Plank
Sequence Stratigraphy Specialist
21 April 2021

Conceptual Site Model



B. Depositional Facies Models

i. Wave Dominated Delta Facies Model:
 Most Applicable to Nipissing - Modern Huron Stages

Fluvial and distributary channel sands and gravels | Massive, fine beach ridge sands

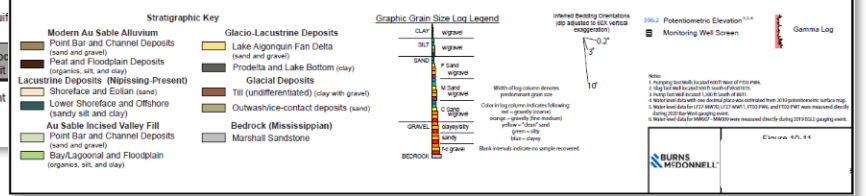
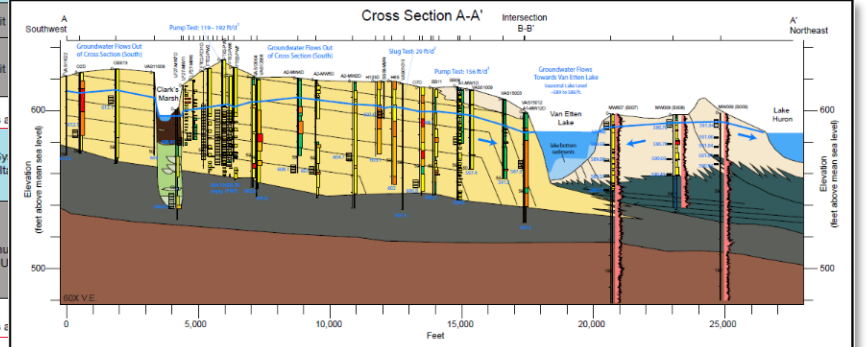
Geologic Age	Geologic Unit	General Lithology	Hydrostratigraphic Function	Thickness
Holocene	Modern Au Sable Alluvium	medium sand and gravel	permeable, insignificant use as aquifer	0-10 ft.
	Point Bar and Channel			
	Floodplain Deposits	silt and clay, with peat	locally confining unit	0-15 ft.
	Lacustrine Deposits (Nipissing to Present)			
Pleistocene	Shoreface and Eolian	fine to medium sands with silt, local gravel on shoreface	Surficial Aquifer System (Holocene Strand Plain)	0-45 ft.
	Lower Shoreface and Offshore	sandy silt and clay some gravel	confining unit	
	Au Sable Incised Valley Fill	woody organics and organic rich silt and clay	confining unit	
	Bay/Lagoonal and Floodplain			
Mississippian	Point Bar and Channel	sand and gravel	permeable, insignificant use as aquifer	
	Glacio-Lacustrine Deposits			
	Lake Algonquin Fan Delta	fine to coarse sand with gravel	Surficial Aquifer Sy (Algonquin Delta)	
	Distributary channel fills, topset and foreset bedding			
Mississippian	Prodelta and Lake Bottom (Algonquin, Seven Mile Hill, and Jack Pines ages)	clay with silt and trace gravel	Regionally Confining Clay-Confining U	
	Glacial Deposits			
	Till (undifferentiated)	clay with silt, sand and gravel		
	Outwash/ice-contact Deposits	medium to fine sand with silt and gravel	permeable, insignificant use as aquifer	
Mississippian	Bedrock			
	Marshall Sandstone	quartz-rich sandstone	Sandstone Aquif	
	Coldwater Shale	shale	Regional Bedrock Confining Unit	

A. Topography and geologic maps show that former WAFB is located on the northern side of the Algonquin Delta, downward sloping glacio-lacustrine deltas deposited during de-glaciation. Clay-rich tills of the Tames moraine are exposed west of the site and are present at depth beneath the Algonquin delta. Mapped shorelines and beach ridges indicate wave driven deposition in during cycles of holocene lake level rise and fall (see Figure 10.2).

B. The block diagrams at right illustrate two facies models that are applicable to site geology. Depositional environments with aquifer elements are indicated with yellow arrows and aquitard elements with grey arrows.

(i) Shows the wave dominated delta facies model currently in use by AFCEC and EGLE. Delta front sands, beach ridges, fluvial channel and point bars make up the primary aquifer elements. Aquitards are comprised of off-shore delta floodplain. This wave dominated analogue is best suited to Nipissing to modern Huron stages.

(ii) Shows a lacustrine strand plain delta facies model developed in the recently de-glaciated regions of Chile. The limited soil development and vegetation results in large, braided fan deltas with very limited fine-grained facies are characterized by coarse foreset bedding downlapping and overlying thin, irregular lacustrine silts and expose also accumulate as bay-fill behind spits and bars developed as longshore transport modifies the delta. This facies from modern systems in a recently de-glaciated landscape is likely appropriate for the Pleistocene deltas.



Overview of CSM Elements and Presentation

■ Geology of the site:

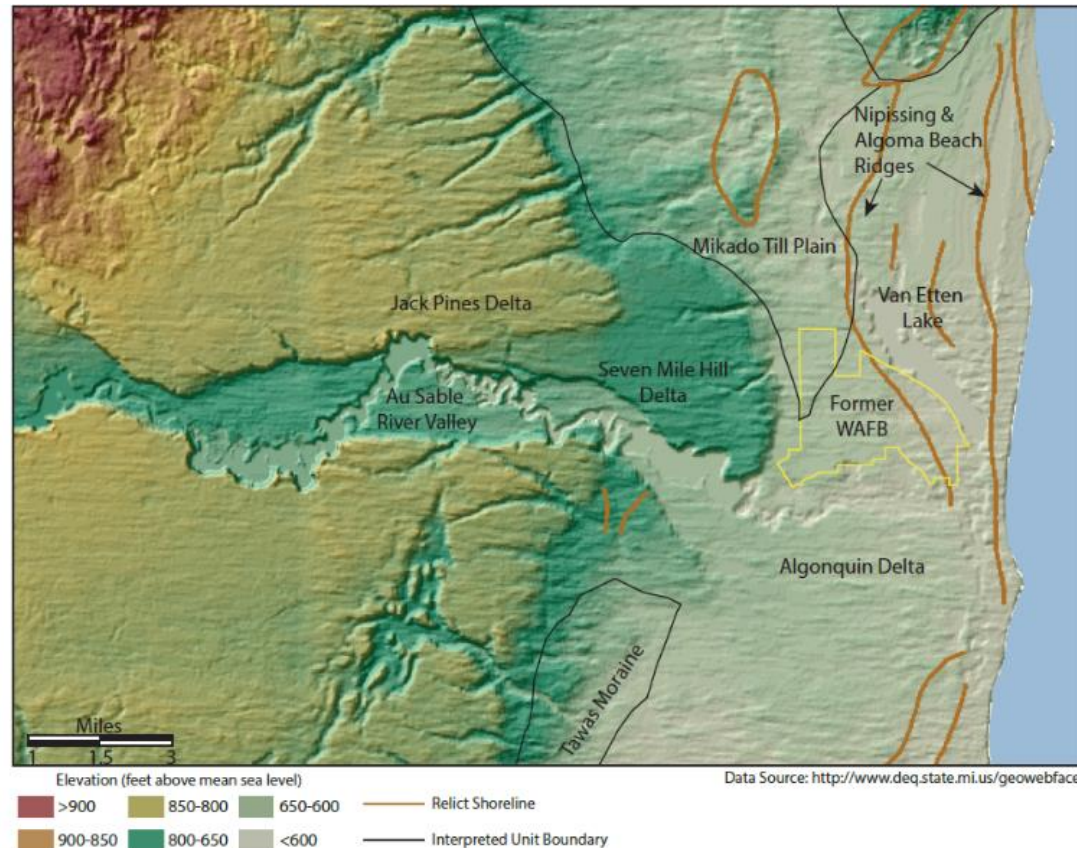
- The plumbing that controls groundwater flow paths

■ Hydrogeology of the site:

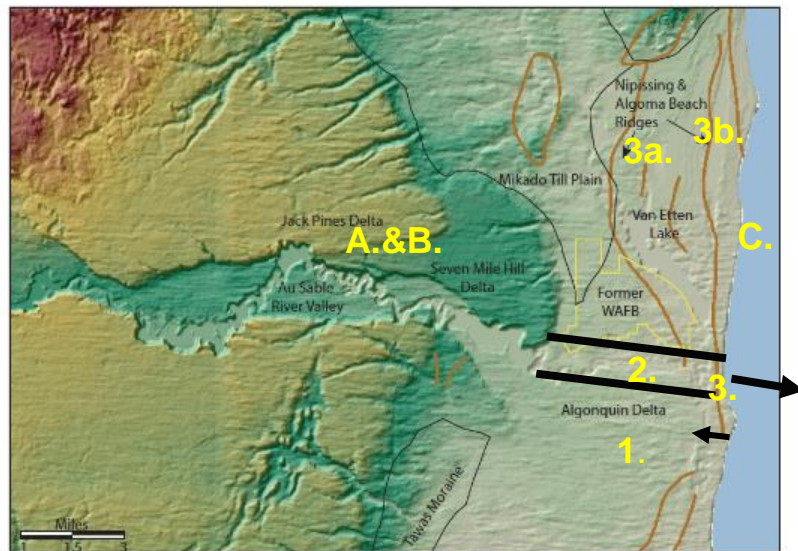
- Where the water and PFAS is moving to and from

■ Current synthesis and data discussion

- Eastern and southern base boundaries
- Van Etten Lake/creek
- Clark's Marsh



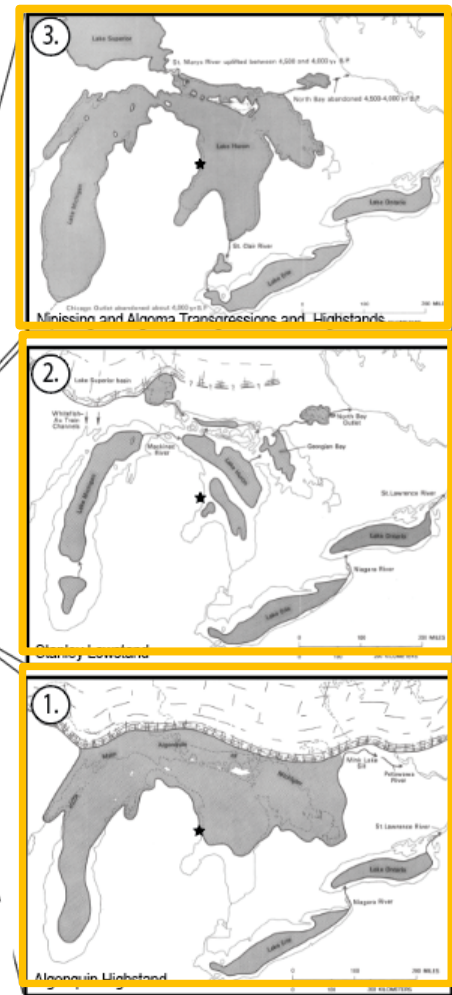
Geologic Evolution of Site Stratigraphy



Chronology of Lake Stages

AGE YEARS B.P.	LAKE MICHIGAN	LAKE HURON
0 - 3000	Modern Lakes	
3000 - 4000	Algoma Great Lakes	
4000 - 5000	Nipissing Great Lakes (Confluent with Lake Superior)	
5000 - 7000	Pre-Nipissing Transgression (Confluent Lake Michigan and Lake Huron Basins)	
7000 - 10,000	Chippewa Low Phase Michigan Basin Draining via the Mackinac River Channel	Stanley Low Phase Confluent Main Huron & Georgian Bay Basins Huron Basin Draining to Hough Level Georgian Bay
10,000 - 11,000	Fort Brady	Korsh?
11,000 - 12,000	Main Algonquin of Michigan (MAM) Calumet Level Two Creeks Low	Orilia Main Algonquin of Huron (MAH) Early Lake Algonquin
12,000 - 13,000	Lake Chicago Glenwood II Intra Glenwood Low Glenwood I	Conl. Hur. A.&B. 16 15

Reconstruction of Paleo Shorelines



(Larsen, 1987)



Hydrostratigraphic Column

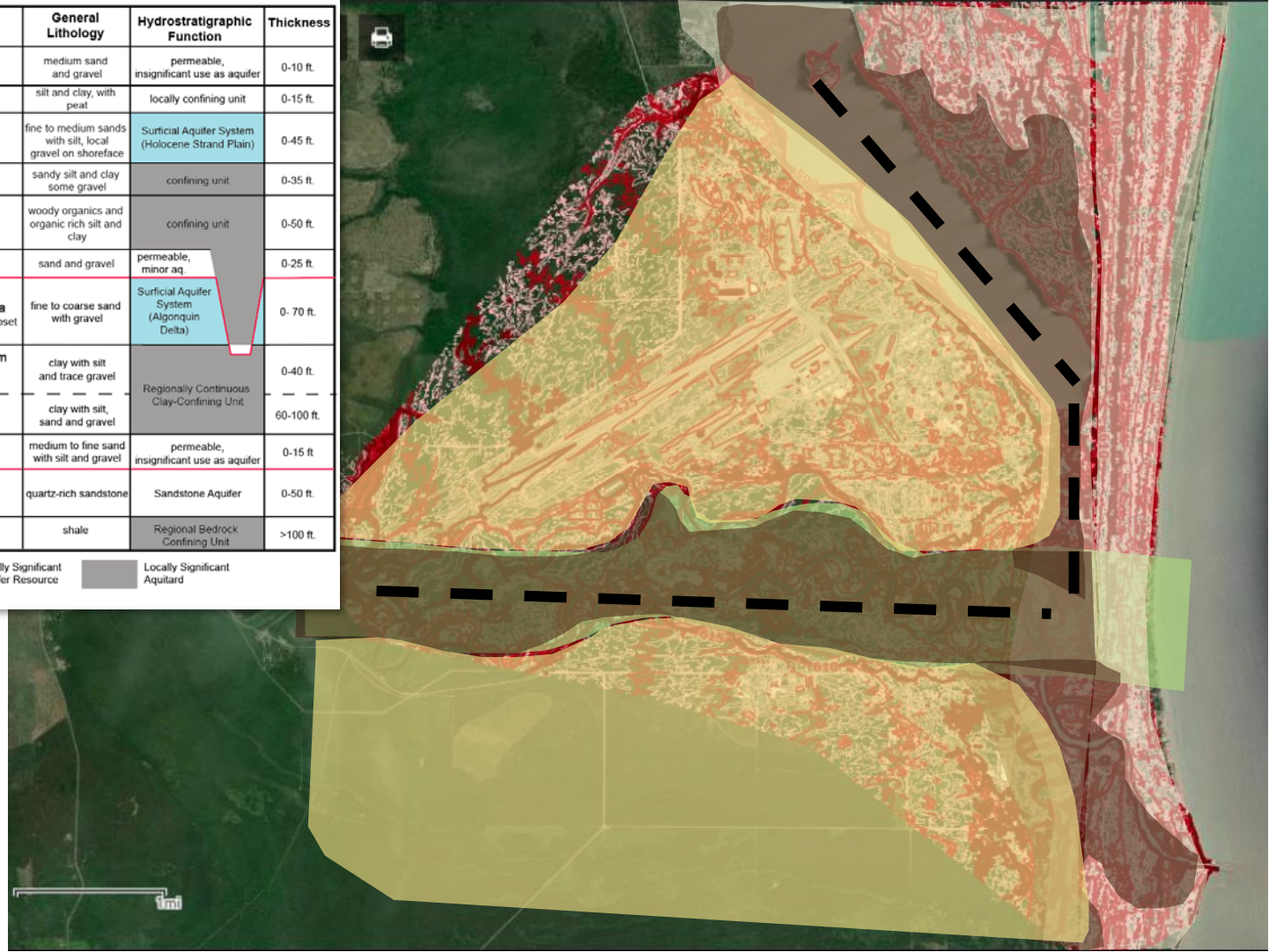
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	Floodplain Deposits	silt and clay, with peat	locally confining unit	0-15 ft.
	Lacustrine Deposits (Nipissing to Present) Shoreface and Eolian	fine to medium sands with silt, local gravel on shoreface	Surficial Aquifer System (Holocene Strand Plain)	0-45 ft.
	Lower Shoreface and Offshore	sandy silt and clay some gravel	confining unit	0-35 ft.
	Au Sable Incised Valley Fill Bay/Lagoonal and Floodplain	woody organics and organic rich silt and clay	confining unit	0-50 ft.
Pleistocene	Point Bar and Channel	sand and gravel	permeable, minor aq.	0-25 ft.
	Glacio-Lacustrine Deposits Lake Algonquin Fan Delta Distributary channel fills, topset and foreset bedding	fine to coarse sand with gravel	Surficial Aquifer System (Algonquin Delta)	0- 70 ft.
	Prodelta and Lake Bottom (Algonquin, Seven Mile Hill, and Jack Pines ages)	clay with silt and trace gravel	Regionally Continuous Clay-Confining Unit	0-40 ft.
	Glacial Deposits Till (undifferentiated)	clay with silt, sand and gravel		60-100 ft.
	Outwash/ice-contact Deposits	medium to fine sand with silt and gravel	permeable, insignificant use as aquifer	0-15 ft.
Mississippian	Bedrock Marshall Sandstone	quartz-rich sandstone	Sandstone Aquifer	0-50 ft.
	Coldwater Shale	shale	Regional Bedrock Confining Unit	>100 ft.

— unconformable contact Locally Significant Aquifer Resource Locally Significant Aquitard
 locally indistinct contact
 sharp contact

Topography

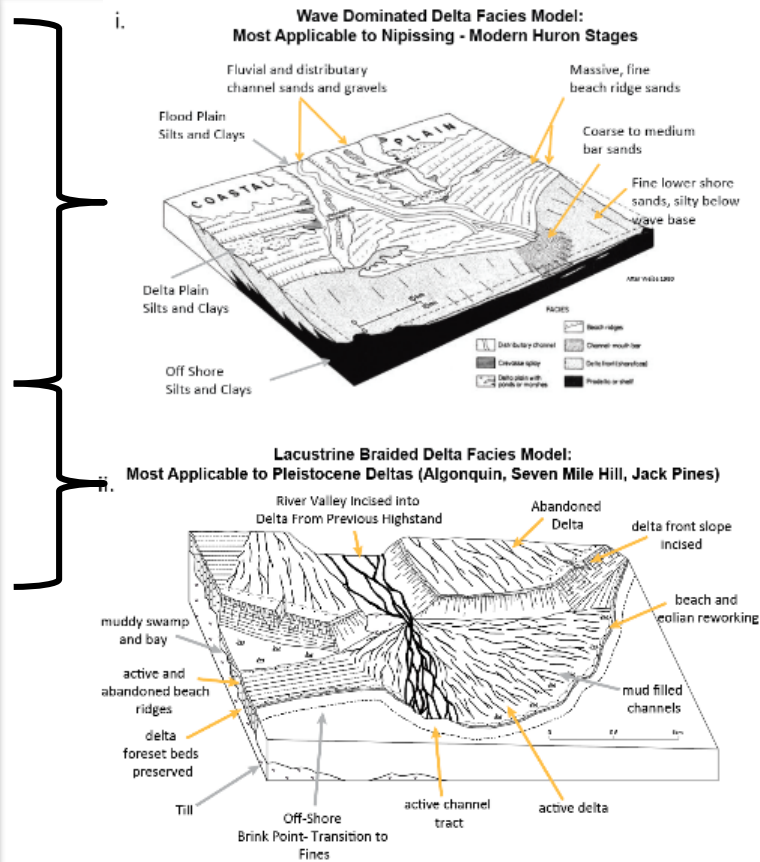
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- unconformable contact
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- sharp contact
- Locally Significant Aquifer Resource
- Locally Significant Aquitard



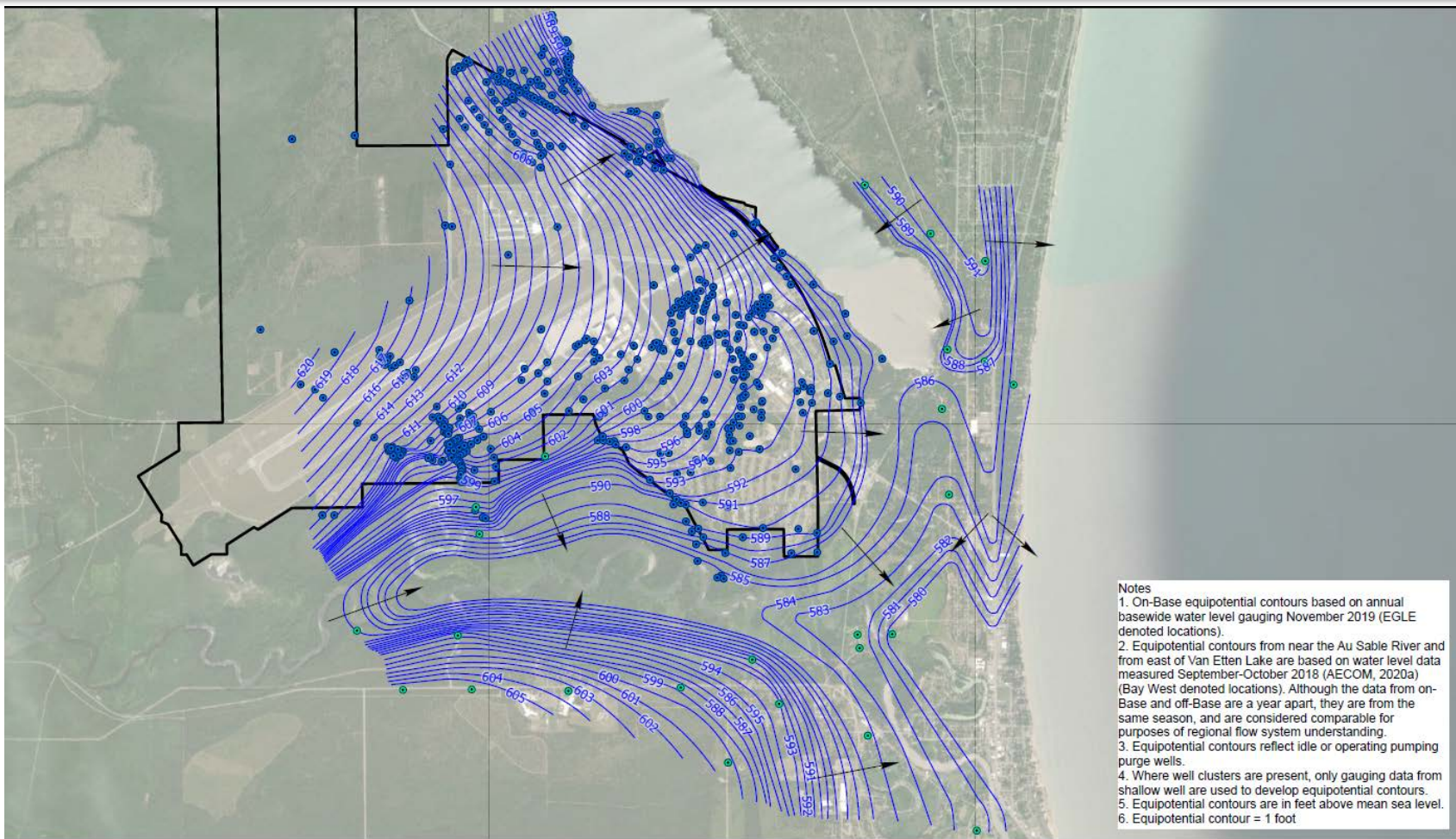
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— unconformable contact Locally Significant Aquifer Resource Locally Significant Aquitard
- - - locally indistinct contact
 sharp contact





Preliminary CSM Potentiometric Surface Map



Notes

1. On-Base equipotential contours based on annual basewide water level gauging November 2019 (EGLE denoted locations).
2. Equipotential contours from near the Au Sable River and from east of Van Etten Lake are based on water level data measured September-October 2018 (AECOM, 2020a) (Bay West denoted locations). Although the data from on-Base and off-Base are a year apart, they are from the same season, and are considered comparable for purposes of regional flow system understanding.
3. Equipotential contours reflect idle or operating pumping purge wells.
4. Where well clusters are present, only gauging data from shallow well are used to develop equipotential contours.
5. Equipotential contours are in feet above mean sea level.
6. Equipotential contour = 1 foot

Legend

- Monitoring Well Location (Bay West)
- Monitoring Well Location (EGLE)
- Installation Area
- Equipotential Contour
- Groundwater Flow Direction

NORTH

2,000 1,000 0 2,000

Scale in Feet



Figure 10-5
Groundwater Potentiometric Surface Map
Preliminary Base-Wide CSM
Former Wurtsmith Air Force Base
Oscoda, MI

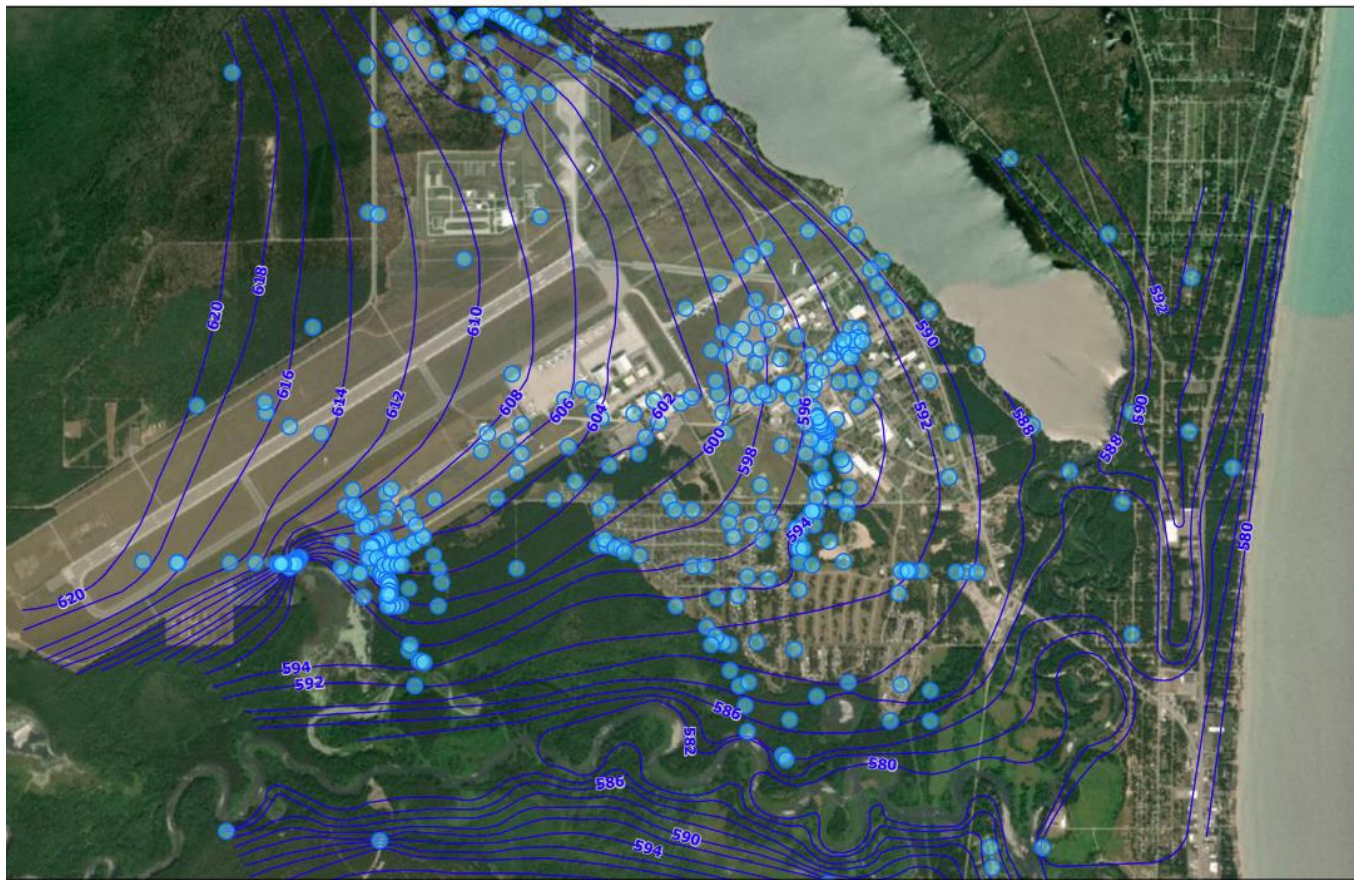
Seasonal Synoptic Potentiometric Surface Map

■ November 2020 shown

- Includes EGLE wells

■ April 2021

- Map to come

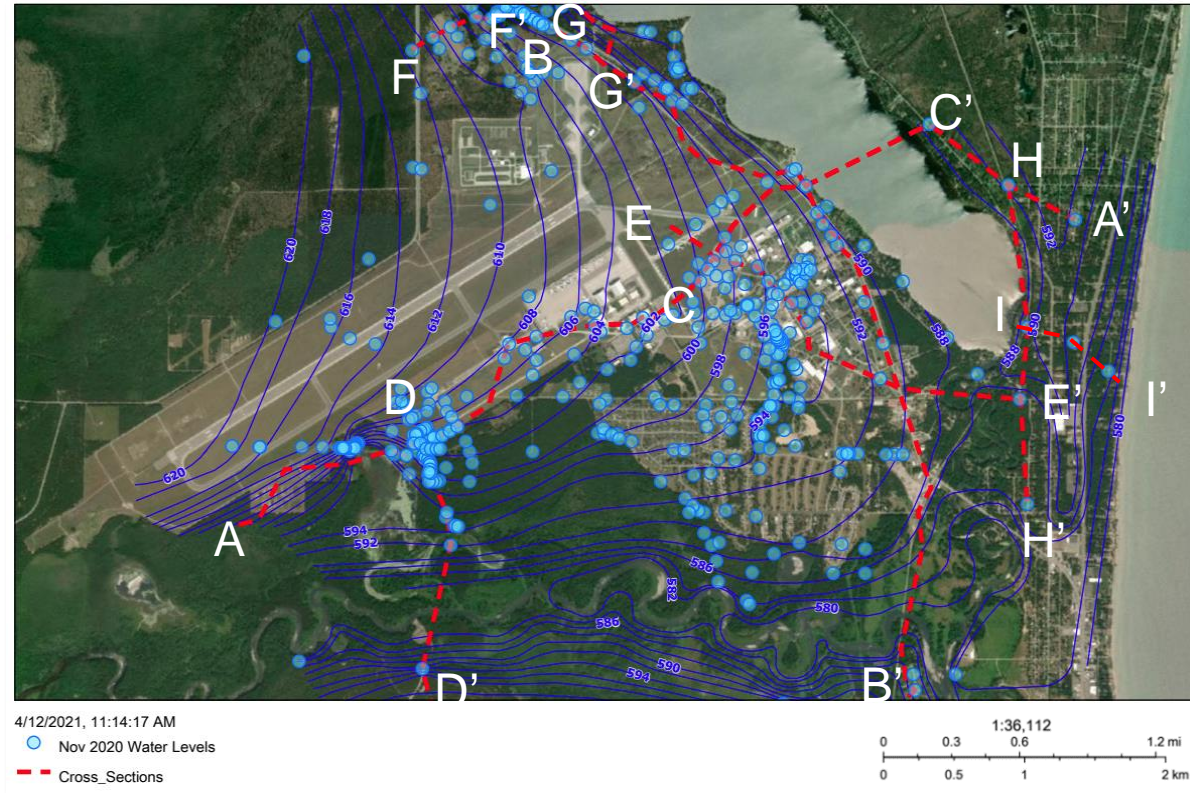


4/12/2021, 11:50:06 AM
● Nov 2020 Water Levels
— Potentiometric Contours (Nov 2020)

1:36,112
0 0.3 0.6 1.2 mi
0 0.5 1 2 km

Stratigraphic Cross Section Network

- A network of 9 cross sections
- Establishes framework for understanding site data
- Informs a science-based approach to more efficient investigation and remedies





Stratigraphic Cross Section Key

Stratigraphic Key

- Modern Au Sable Alluvium**
 - Point Bar and Channel Deposits (sand and gravel)
 - Peat and Floodplain Deposits (organics, silt, and clay)
- Lacustrine Deposits (Nipissing-Present)**
 - Shoreface and Eolian (sand)
 - Lower Shoreface and Offshore (sandy silt and clay)
- Au Sable Incised Valley Fill**
 - Point Bar and Channel Deposits (sand and gravel)
 - Bay/Lagoonal and Floodplain (organics, silt, and clay)

- Glacio-Lacustrine Deposits**
 - Lake Algonquin Fan Delta (sand and gravel)
 - Prodelta and Lake Bottom (clay)
- Glacial Deposits**
 - Till (undifferentiated) (clay with gravel)
 - Outwash/ice-contact deposits (sand)
- Bedrock (Mississippian)**
 - Marshall Sandstone

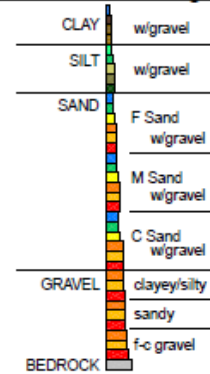
596.2 Potentiometric Elevation^{4,5,6}

Monitoring Well Screen



Gamma Log

Graphic Grain Size Log Legend



Width of log column denotes predominant grain size

Color in log column indicates following:
 red = gravelly (coarse)
 orange = gravelly (fine-medium)
 yellow = "clean" sand
 green = silty
 blue = clayey

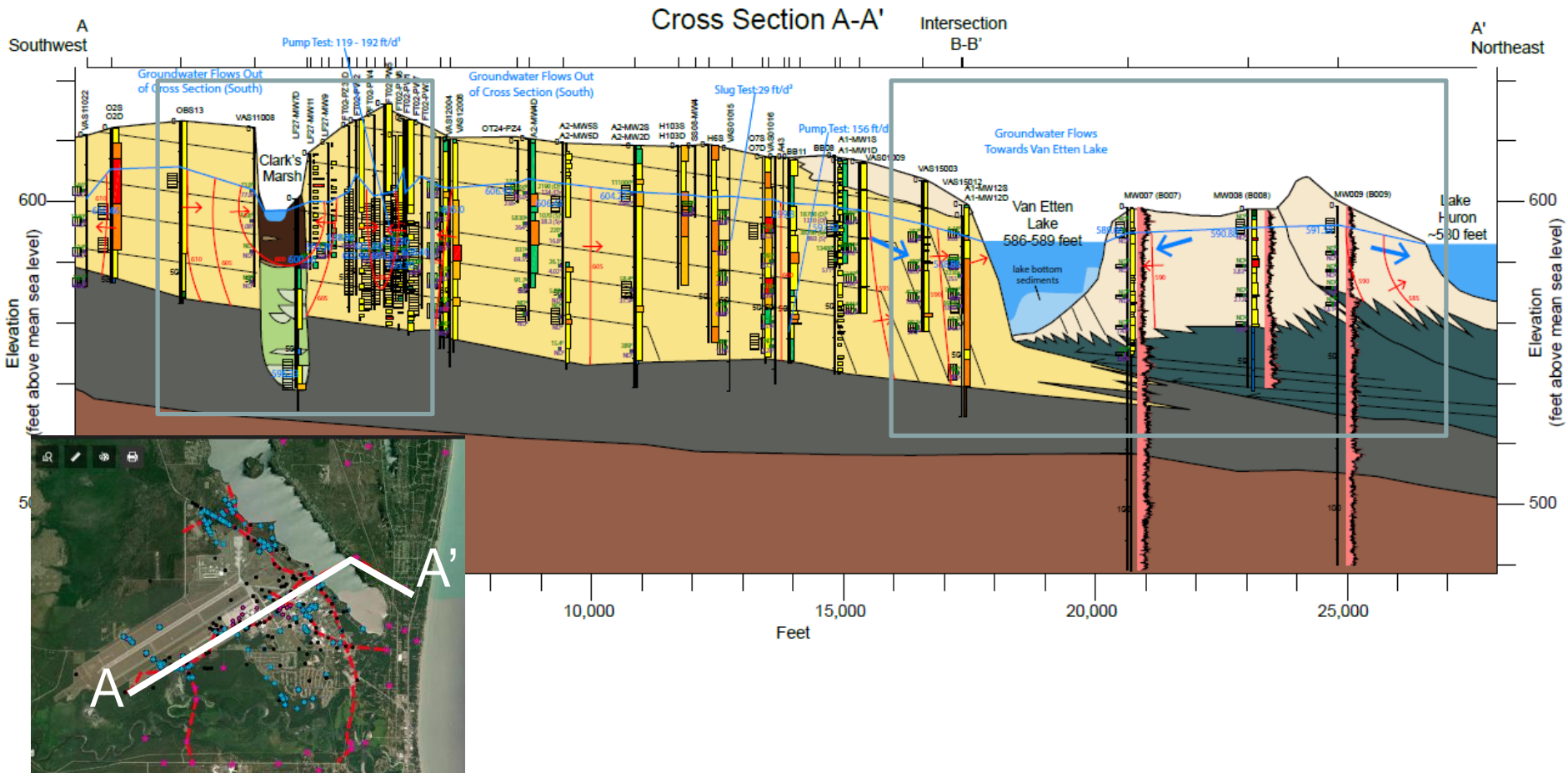
Blank intervals indicate no sample recovered.

Inferred Bedding Orientations (dip adjusted to 60X vertical exaggeration)



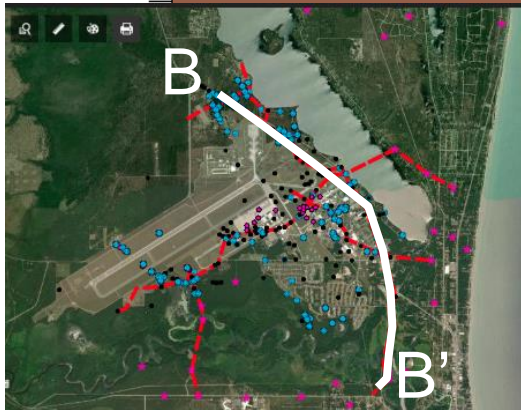
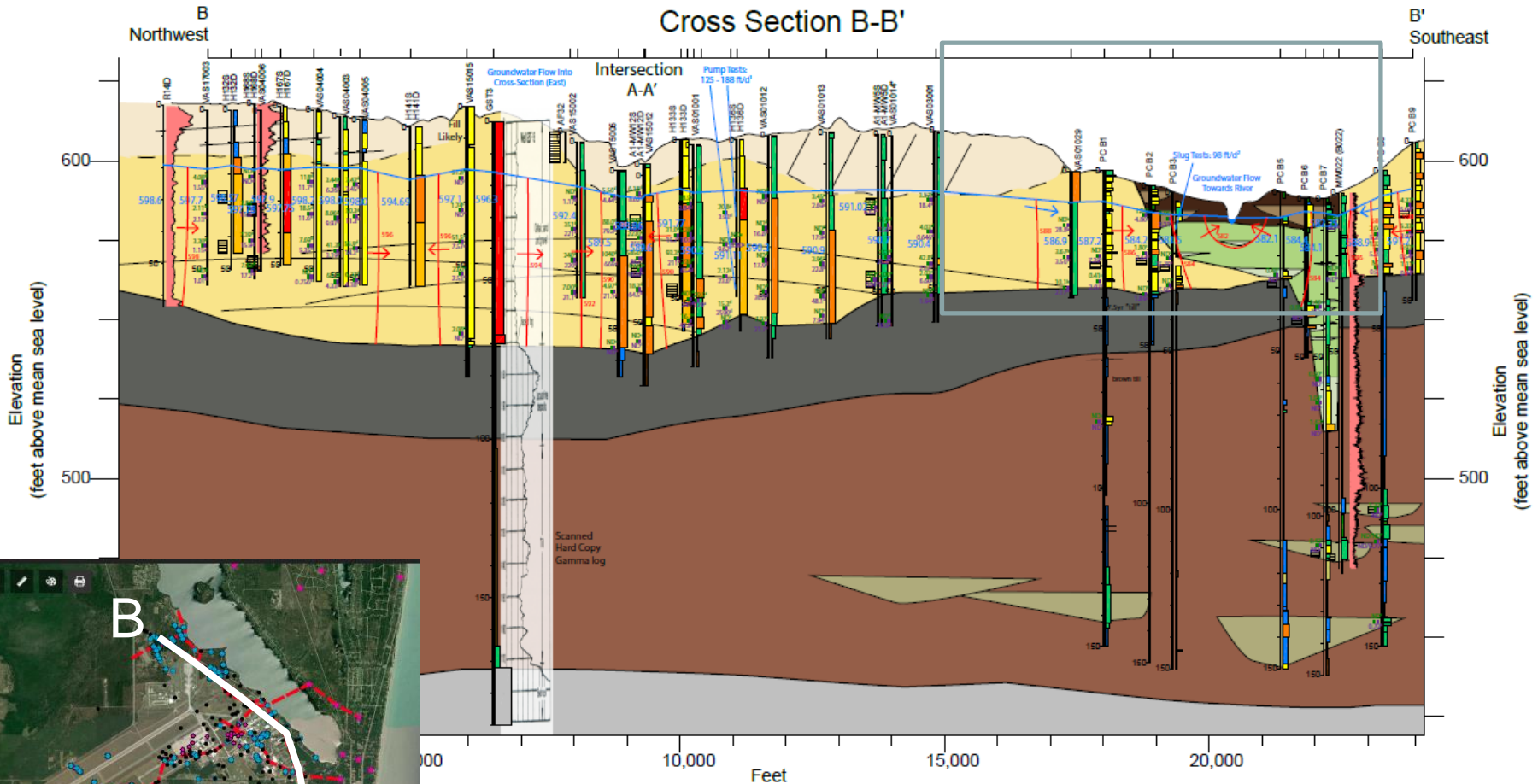


Overview: Cross Sections A, B, and D



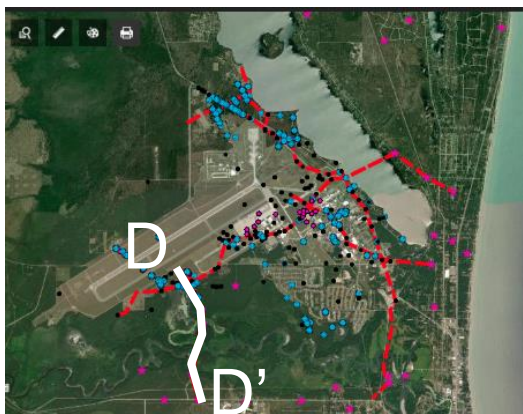
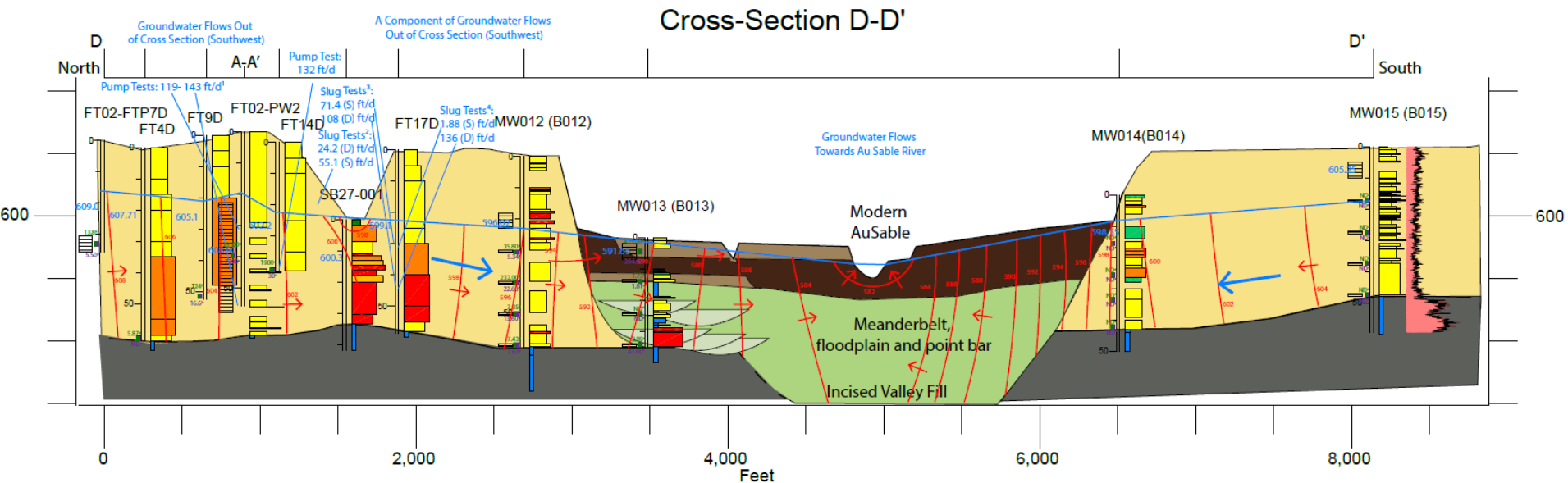


Cross Section B-B'





Cross Section D-D'





Overview of Plume Visualizations

Wurtsmith DSMT
Digital Site Management Tool

Learn more about PROGRESS

Point Locations Geology Contaminant Areas

- Graying sand, 0 to 6 percent slopes
- Graying sand, calcareous substratum, nearly level and undulating
- Tawas and Lupton mucks, 0 to 1 percent slopes
- Typic Udipsamments, hilly
- Typic Udipsamments, nearly level and undulating
- Udipsamments-Urban land complex, 0 to 8 percent slopes
- Winterfield loamy sand, 0 to 2 percent slopes
- others

Topographic Contours

Filters

- Location
- Total Depth
- Screen Interval
- PFAS Results
- SW8260 VOC Results
- All Analytes/Compounds Search

Time Series Chart Location Selection
Chart A Selection

Select Location ID: A1-MW4

Select analyte: PERFLUOROOCANOIC ACID

Select time range start and end (optional): [] and []

Chart A - Depth Profile

Chart A - Analyte Level

Sample Log Date	Concentration
11/2017	~58
9/2018	~10
3/2019	~5
6/2019	~25

Chart B - Analyte Level

Sample Beginning Depth (ft)	Concentration
0	~5
32	~48
42	~15
52	~5

Powered by: USDA FSA, GeoEye, Maxar, esri

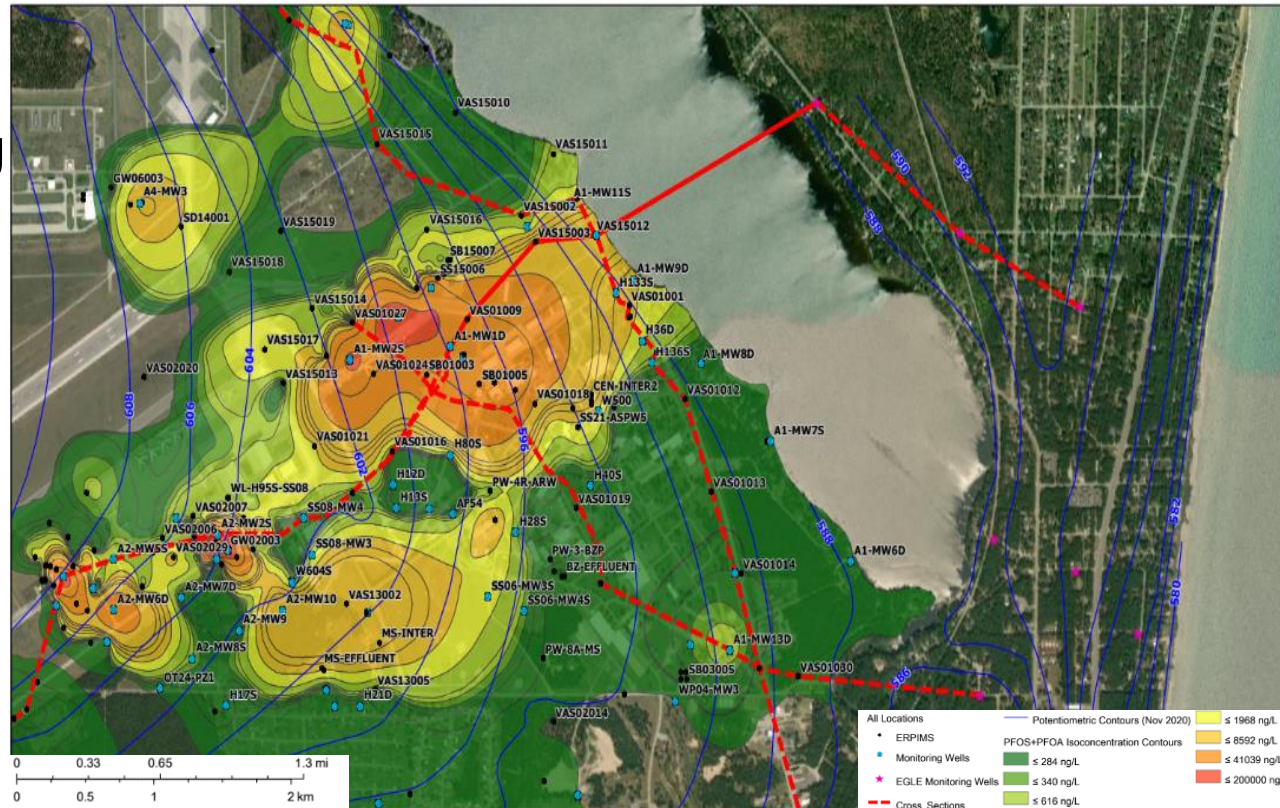
Groundwater on Eastern Boundary of Former WAFB

■ Here the CSM addresses concepts related to:

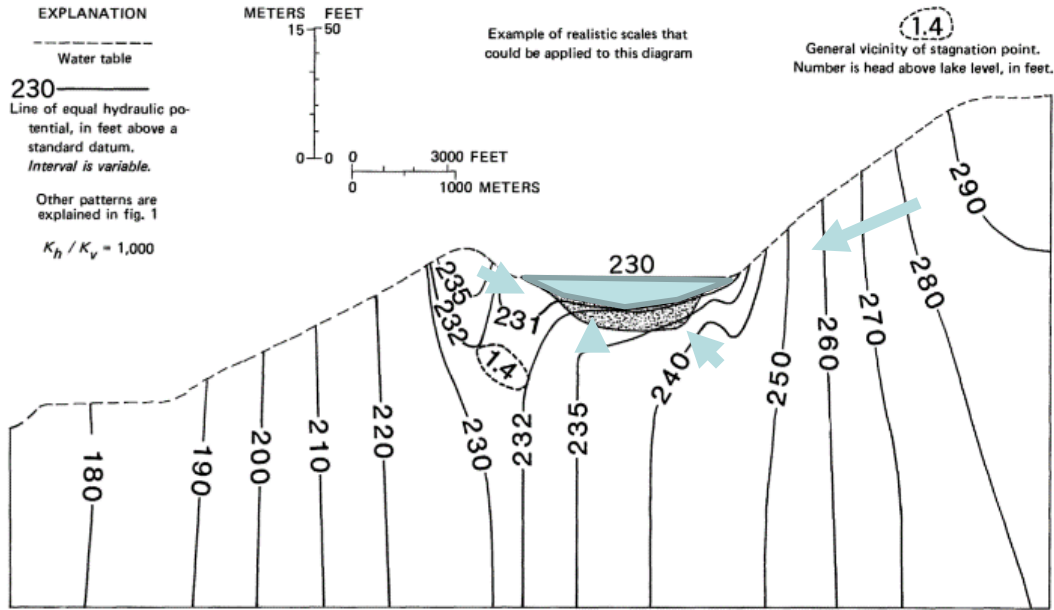
- Potential underflow of Van Etten Lake and creek
- Groundwater-surface water dynamics on lake margin

■ We examine

1. Geologic plumbing
2. Groundwater flow
3. Analytical data

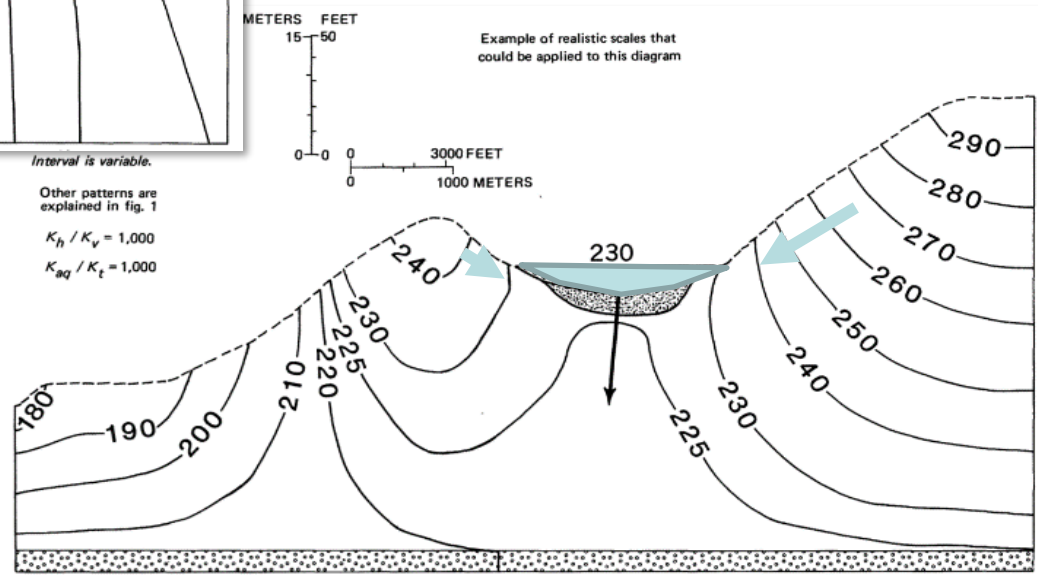


Groundwater-Lake Systems

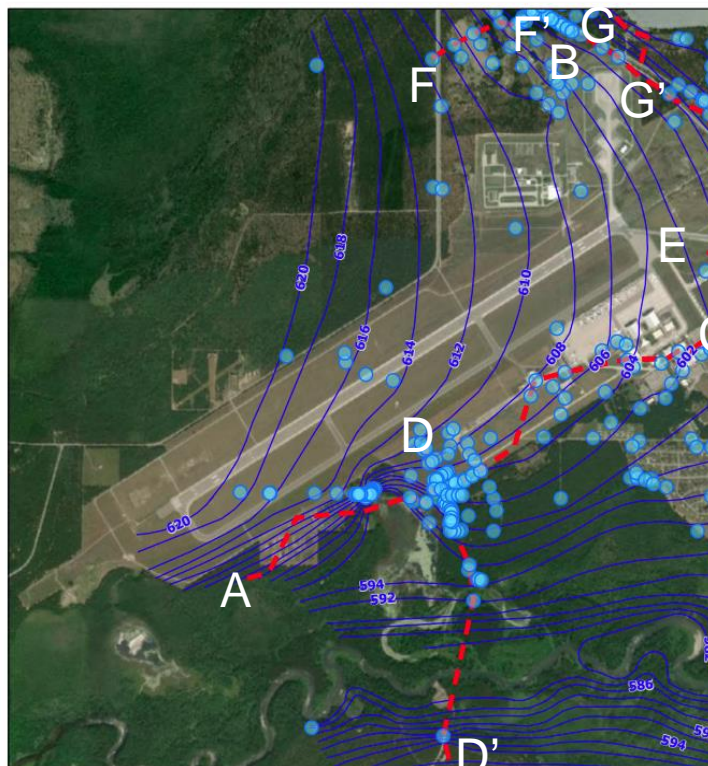


Discharge Lake: No outflow from lake to groundwater on either side or bottom. Lack of strong vertical gradients. **Similar to Van Etten Lake**

Recharge-Discharge Lake: Outflow through bottom occurs when there are steep groundwater vertical gradients, plus a permeable geologic unit at depth. **Dissimilar to Van Etten Lake**
T.C. Winter, 1976



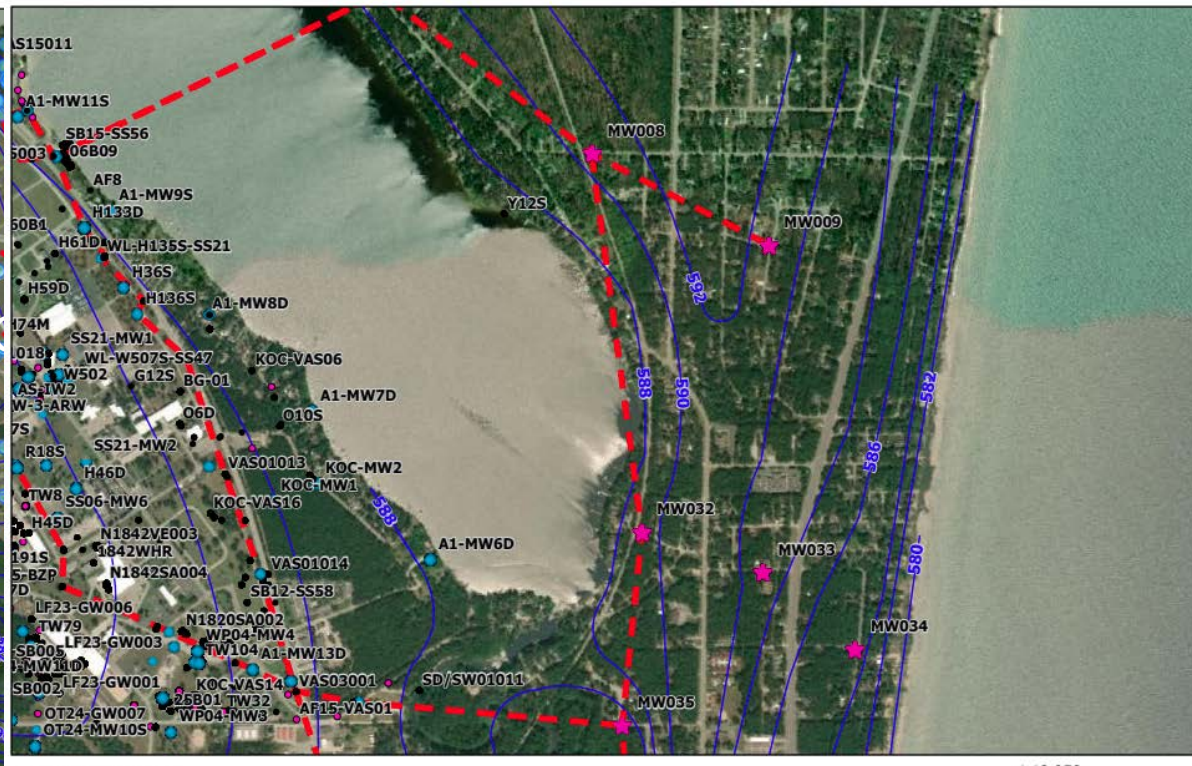
Stratigraphy and Groundwater Flow



4/12/2021, 11:14:17 AM

Nov 2020 Water Levels

Cross_Sections



4/16/2021, 9:47:48 AM

All Locations

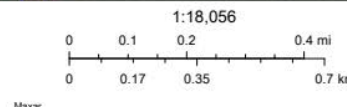
- ERPIMS
- Monitoring Wells

Boring Locations

EGLE Wells

Cross_Sections

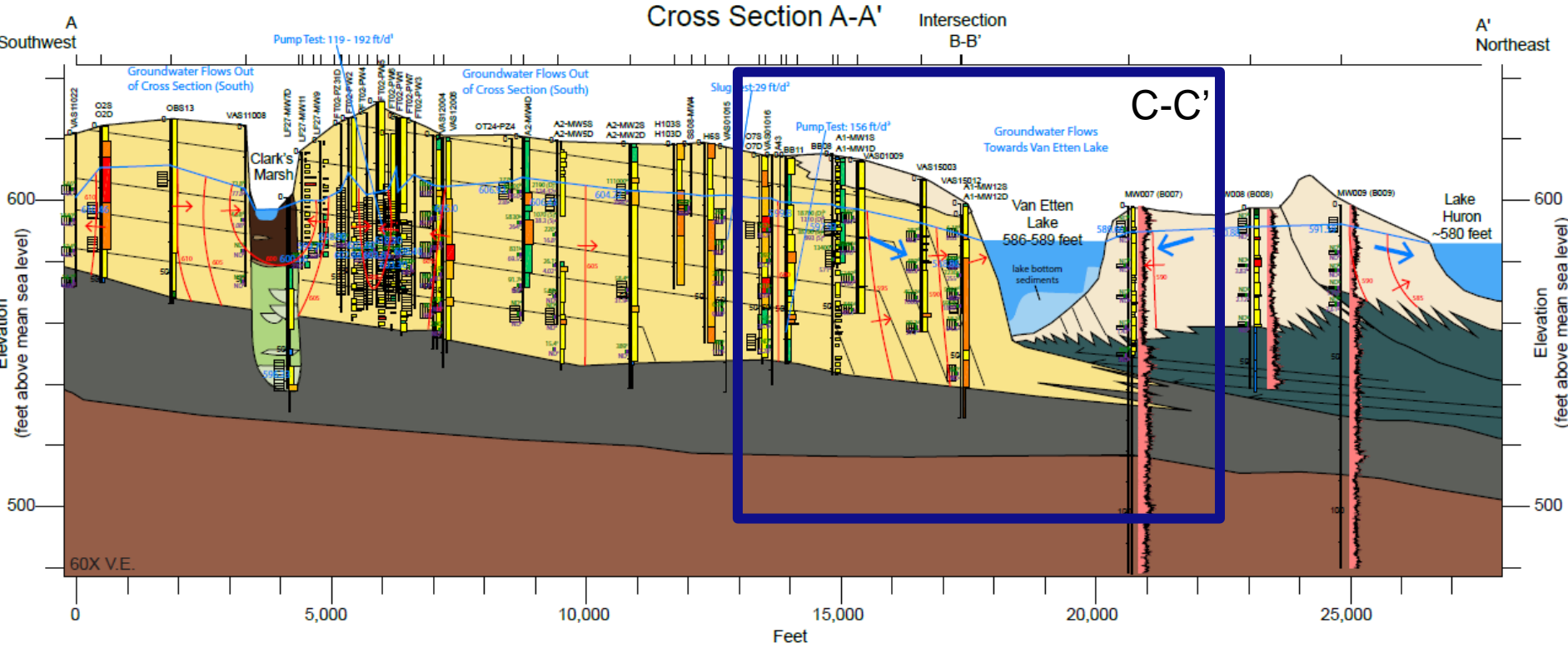
Potentiometric Contours (Nov 2020)



Burns & McDonnell
Maxar

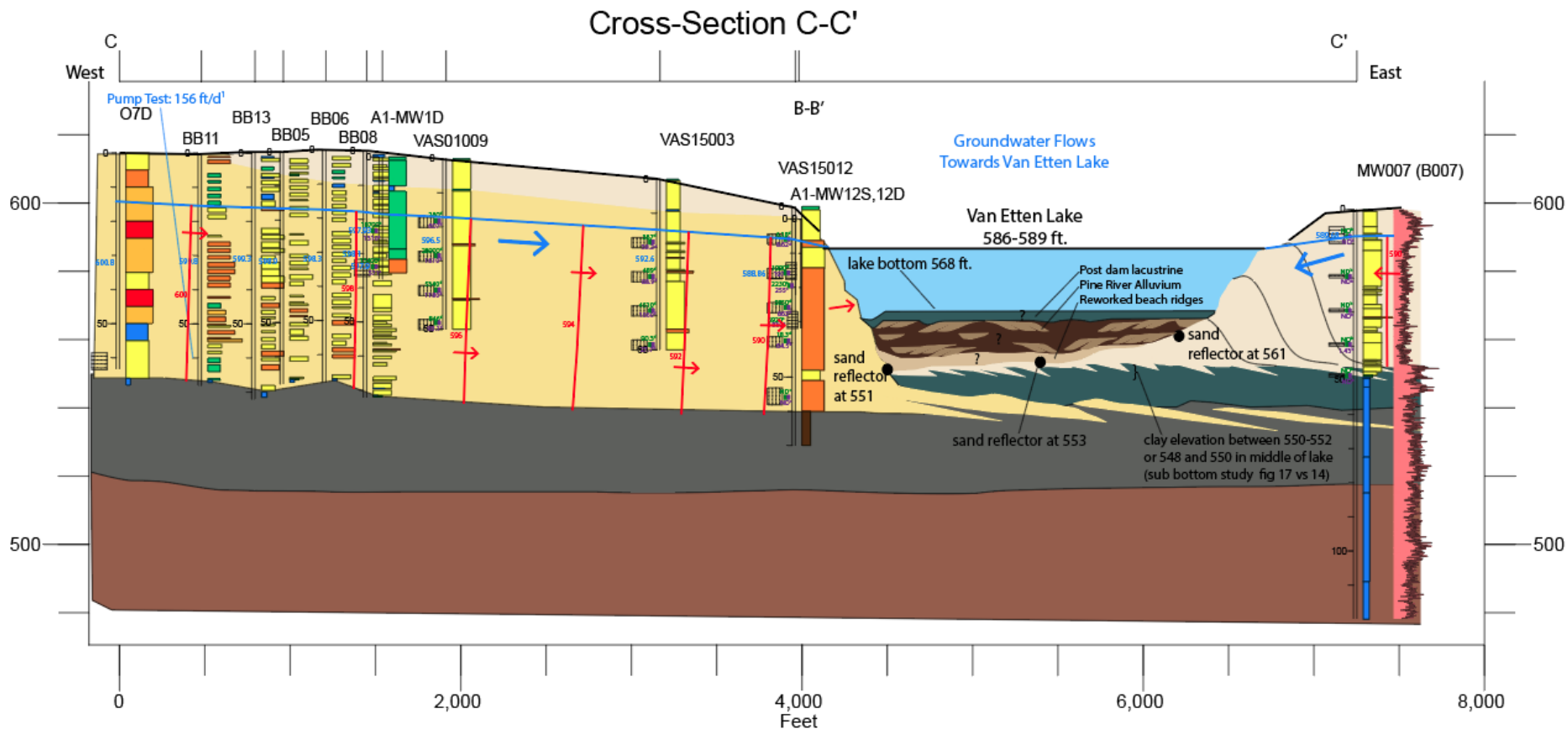


Stratigraphy and Groundwater Flow: A-A'



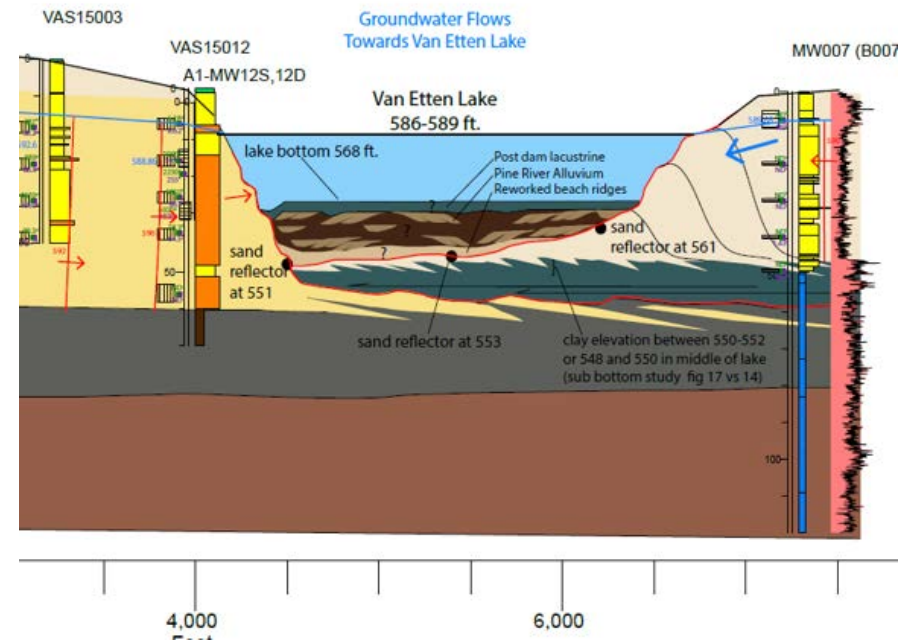
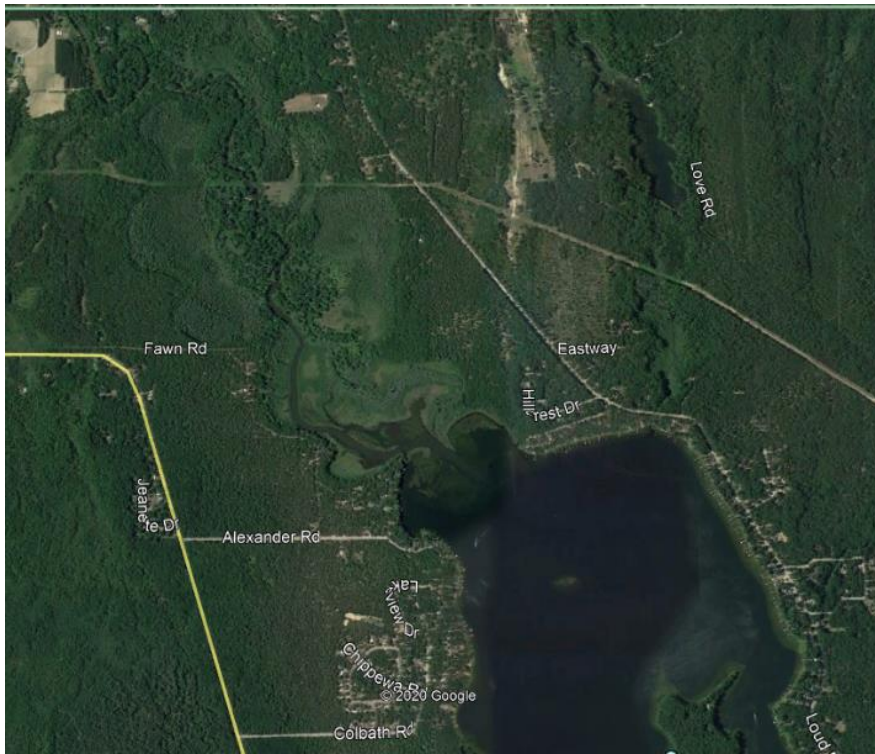


Stratigraphy and Groundwater Flow: C-C'



Stratigraphy Beneath Van Etten Lake: C-C'

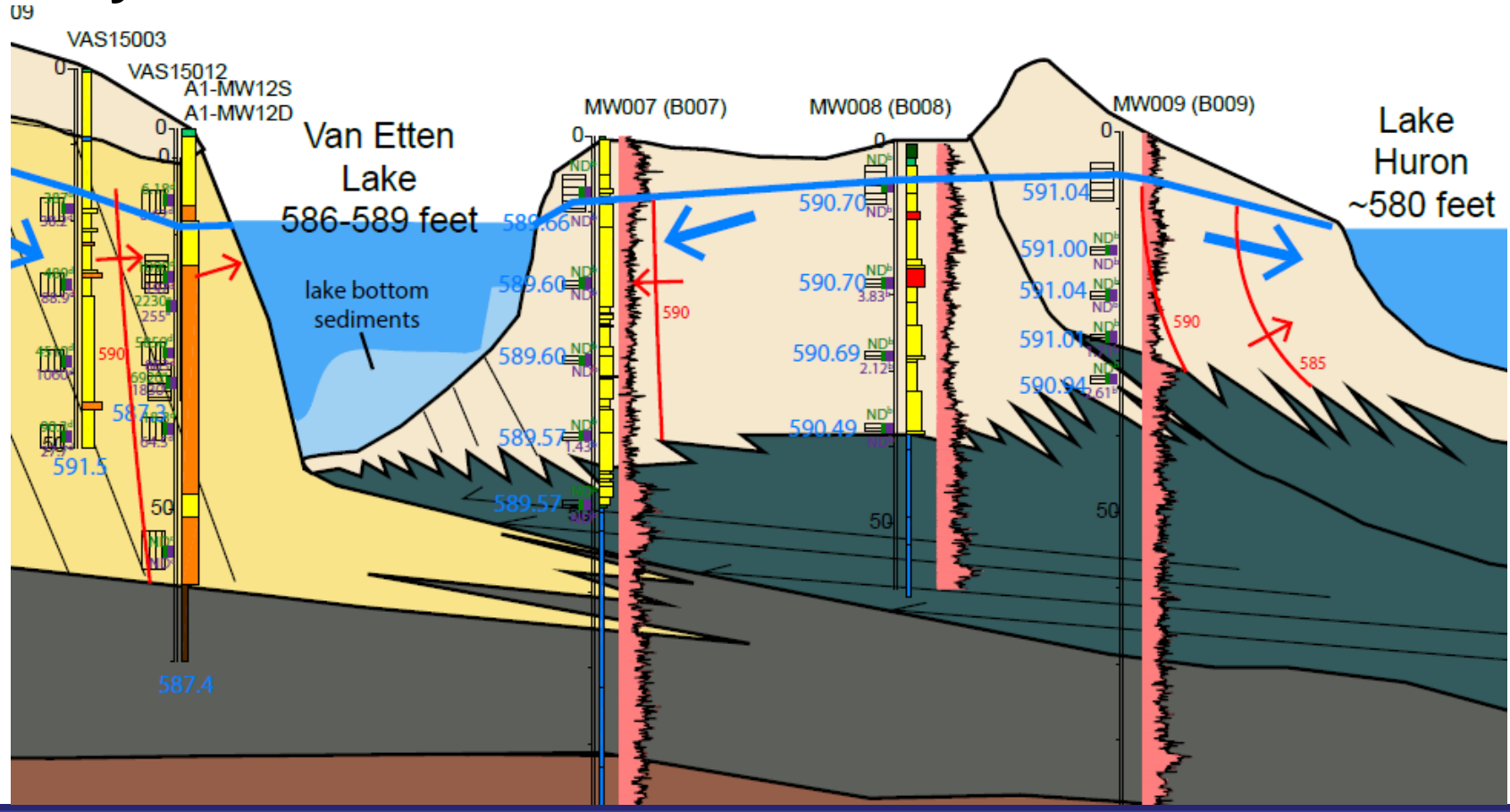
- Heterogeneity (sand, silt, organics, minor clay) predicted by modern analogue





Hydraulic and Analytical Data

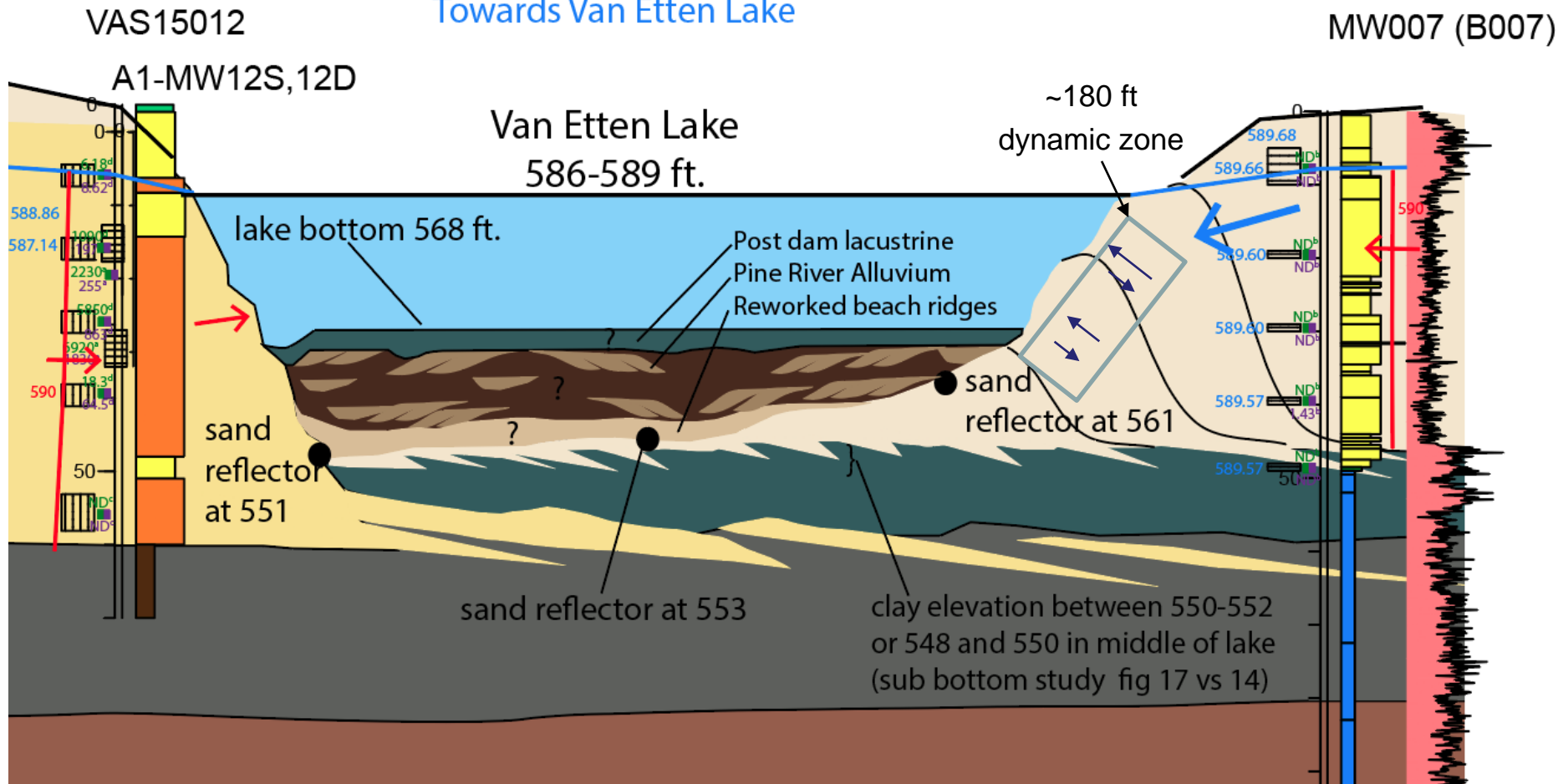
- Hydraulic data indicate convergence at Van Etten Lake
- Analytical data do not indicate underflow



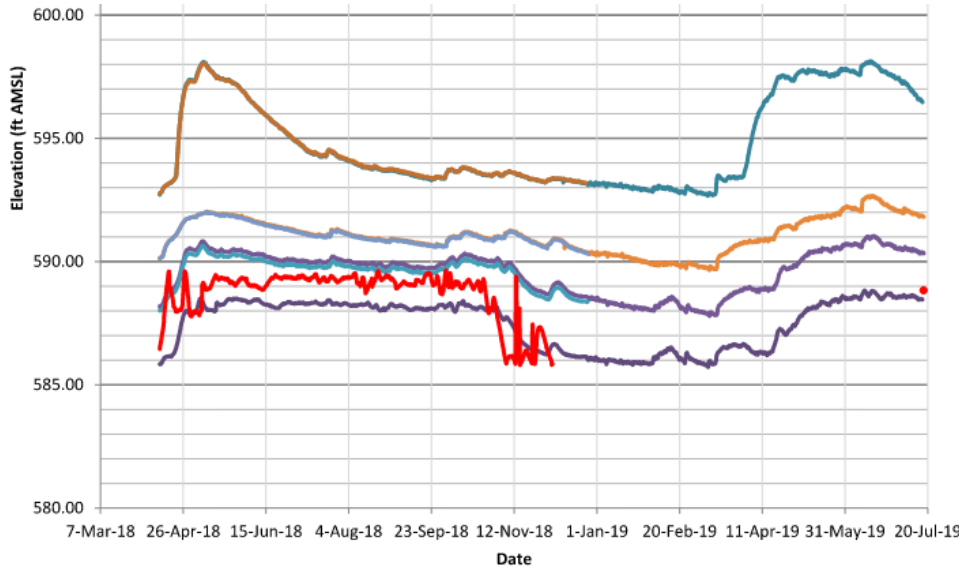


Former Wurtsmith AFB RAB Van Etten Lake: A Groundwater Discharge Lake With Seasonally Controlled Outlet

Groundwater Flows
Towards Van Etten Lake



Groundwater Dynamics at Van Etten Lake



- DEQ-LD-MW003
- RI-MW005 (20-21 ft)
- RI-MW005 (60-61 ft)
- RI-MW007 (19-20 ft)
- RI-MW007 (48-49 ft)
- RI-MW008 (18-19 ft)
- RI-MW008 (37-38 ft)
- Van Etten Lake
- Van Etten Lake 7/17/19

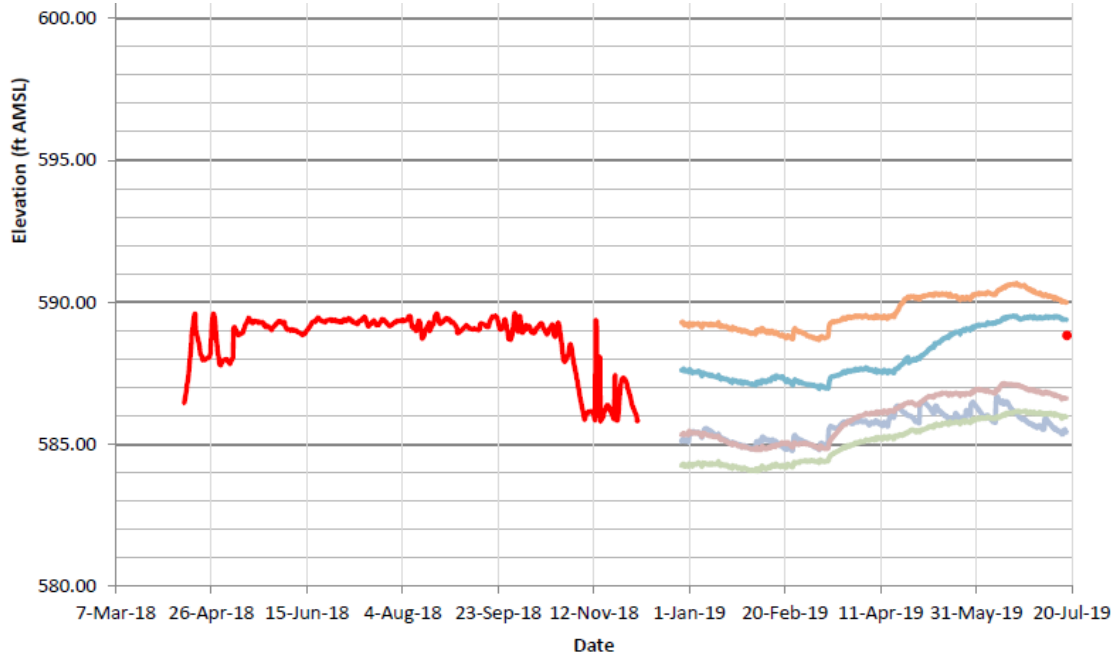
Notes:
 1. 20-21 ft, 60-61 ft, etc. refers to depth below ground surface of the well screen.

1. East side of lake: GW heads are always higher than lake in 6 of 7 monitoring wells. Regional heads show GW flow toward lake
2. Only in DEQ-LD-MW003, on SE end of VEL, is head lower than lake, during warm weather months





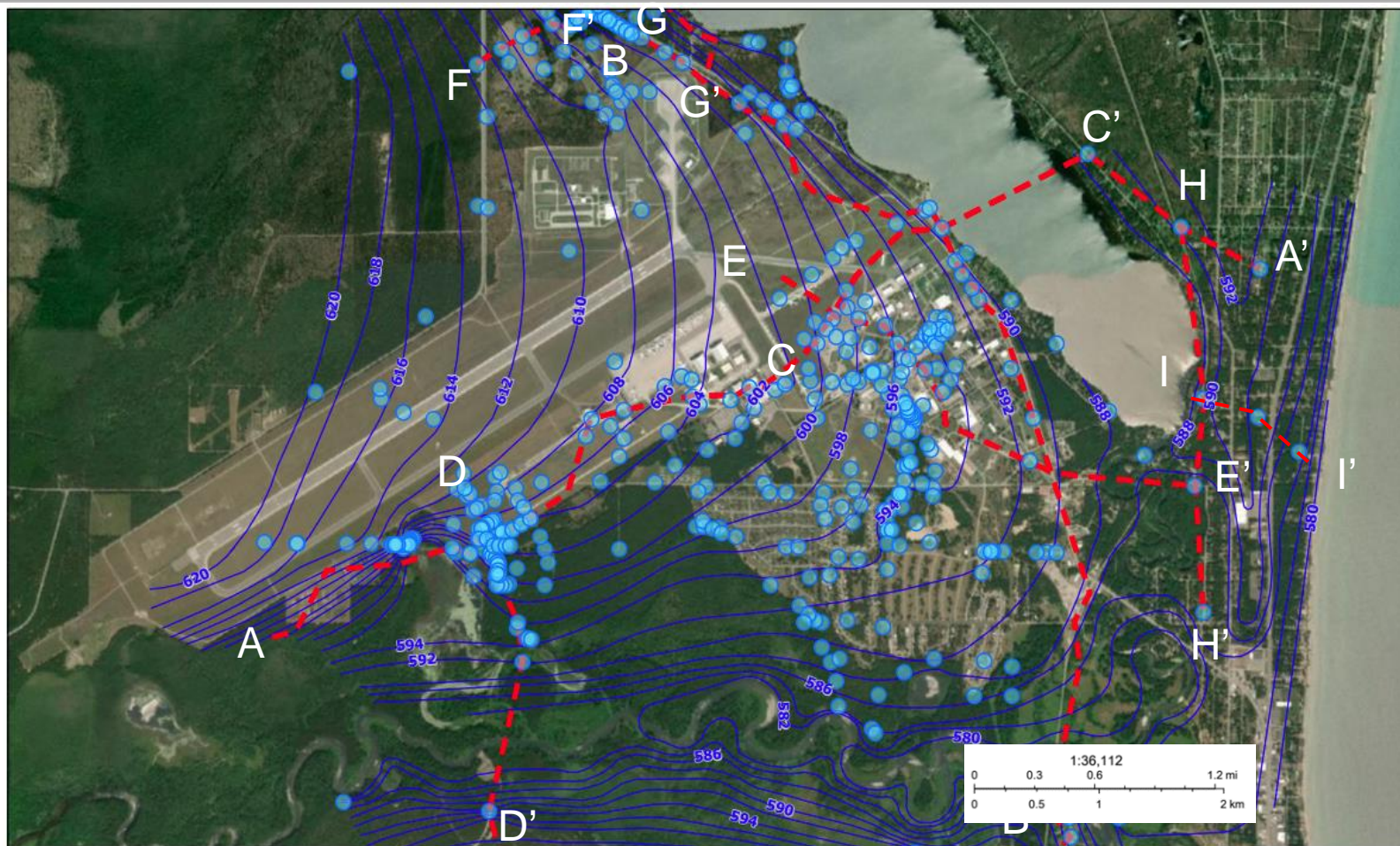
Groundwater Dynamics at Van Etten Lake



- Van Etten Lake
- RI-MW032 (18-23 ft)
- RI-MW033 (13-18 ft)
- RI-MW034 (7.5-12.5 ft)
- RI-MW035 (30-31 ft)
- RI-MW036 (45-46 ft)
- Van Etten Lake 7/17/19



Van Etten Creek and Groundwater Flow



4/12/2021, 11:14:17 AM

- Nov 2020 Water Levels
- - - Cross_Sections





Former Wurtsmith AFB RAB Analogous Groundwater Surface Water Scenarios

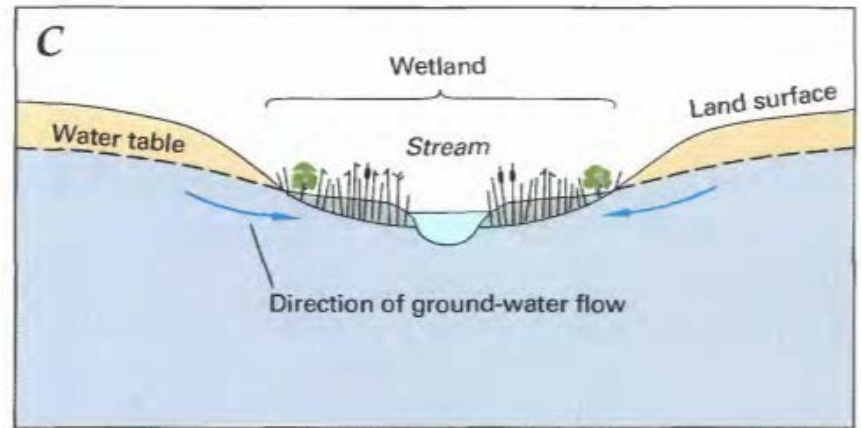
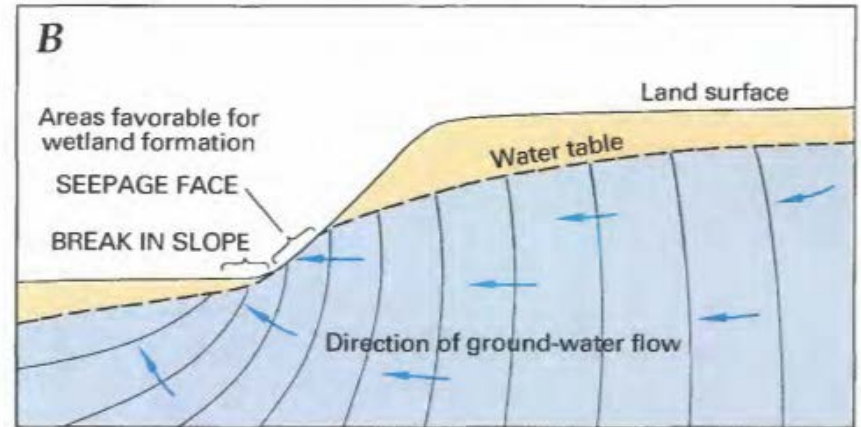


■ Scenario similar to

- West side of Van Etten Creek
- North end of Clark's Marsh
- Margins of Au Sable Valley

■ Scenario similar to

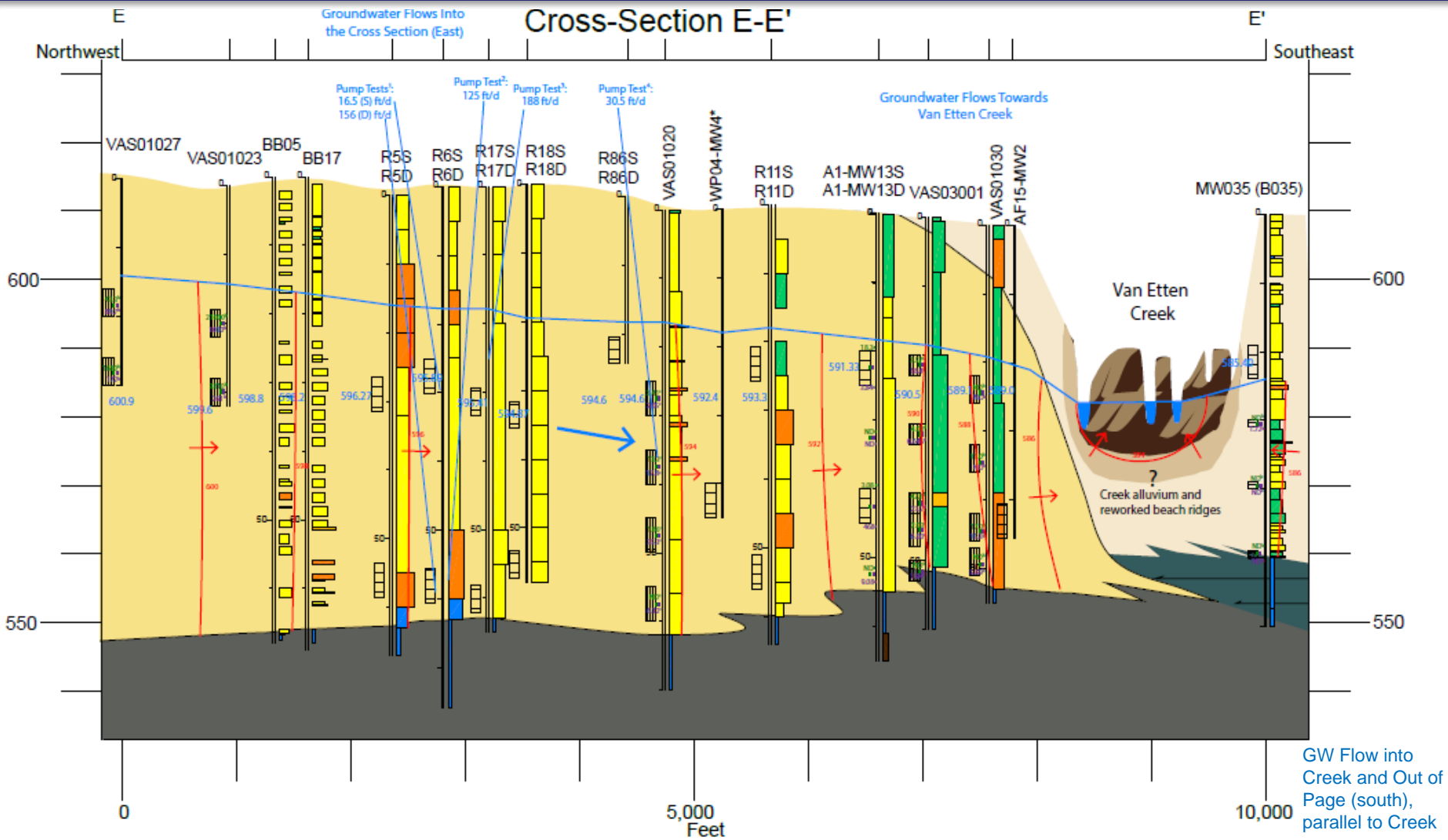
- Au Sable River
- Van Etten Creek



Winter, 1999



Van Etten Creek and Groundwater Flow

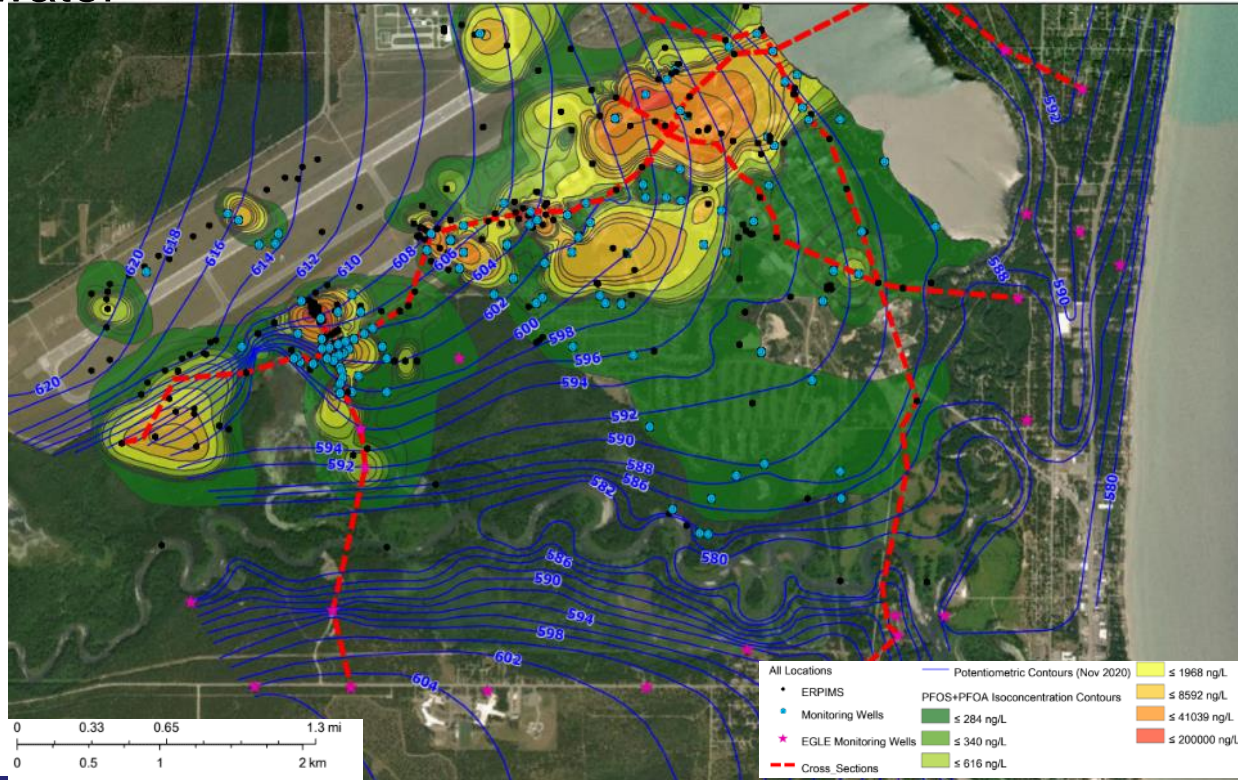




Groundwater on Southern Boundary of Former WAFB

■ Here the CSM addresses concepts related to:

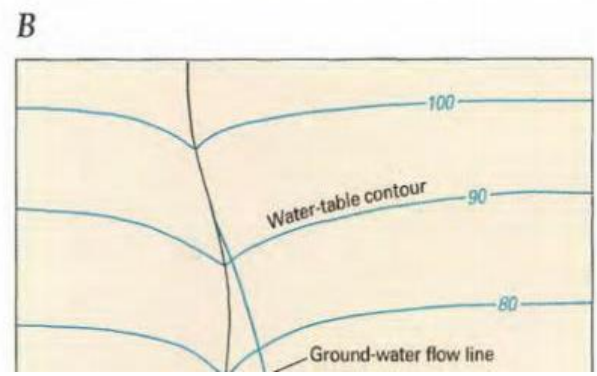
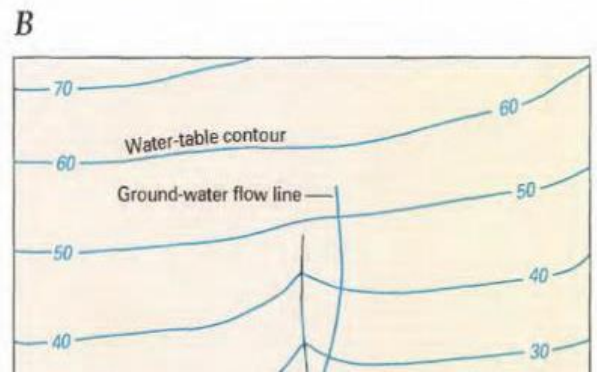
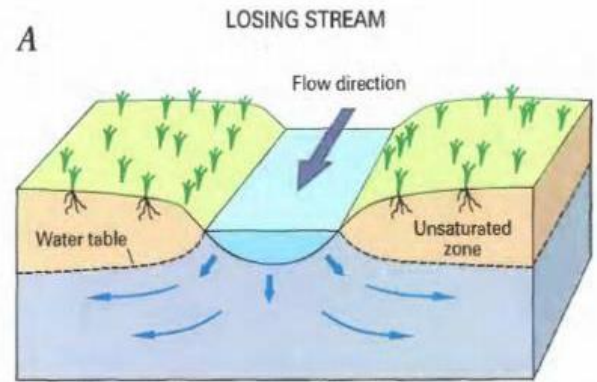
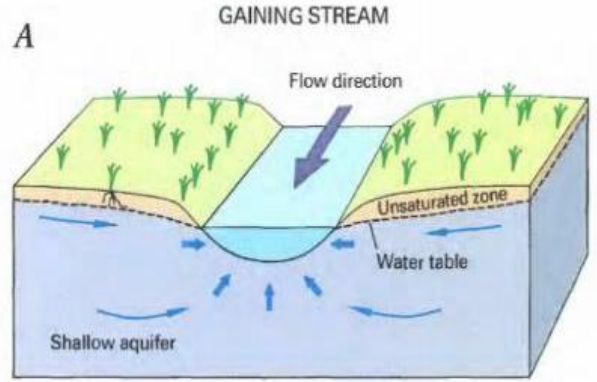
- Clark's Marsh
- Potential underflow of Au Sable River
- Discharge to surface water





Former Wurtsmith AFB RAB Groundwater Gradients in Gaining Streams and Losing Streams

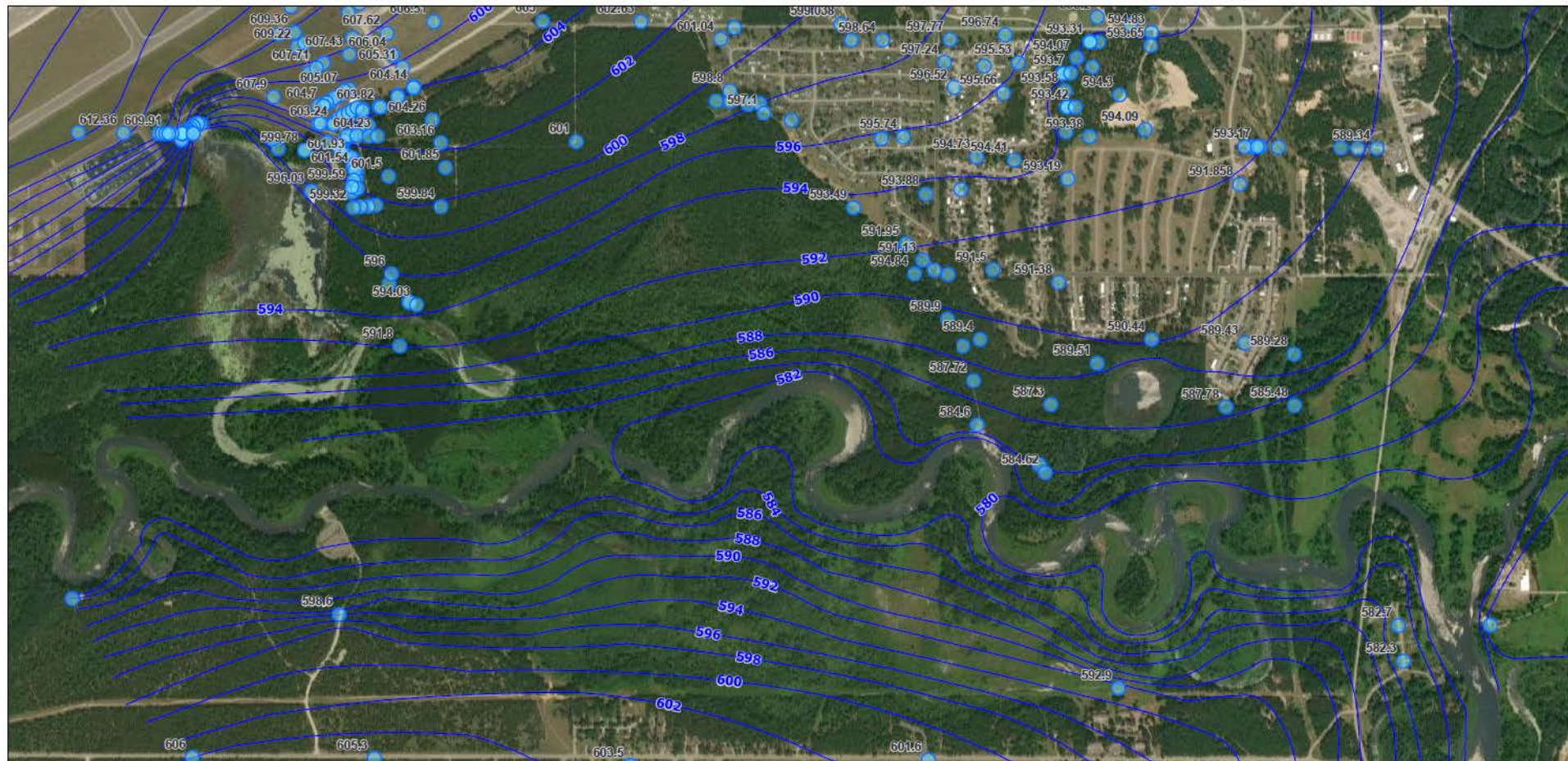
- Groundwater gradients are toward stream in gaining streams, and away from stream in losing streams.
- Au Sable River and Van Etten Creek show gradients toward the stream, characteristic of a gaining stream



T.C. Winter, 1999

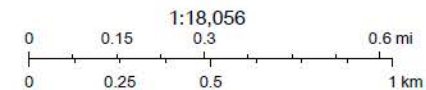


Au Sable River Valley Potentiometric Surface



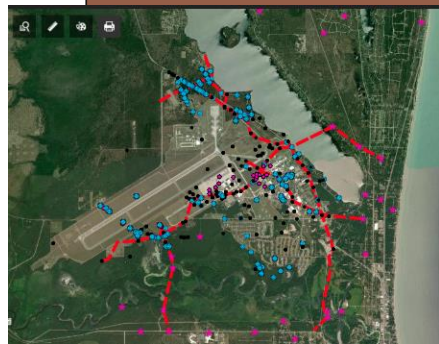
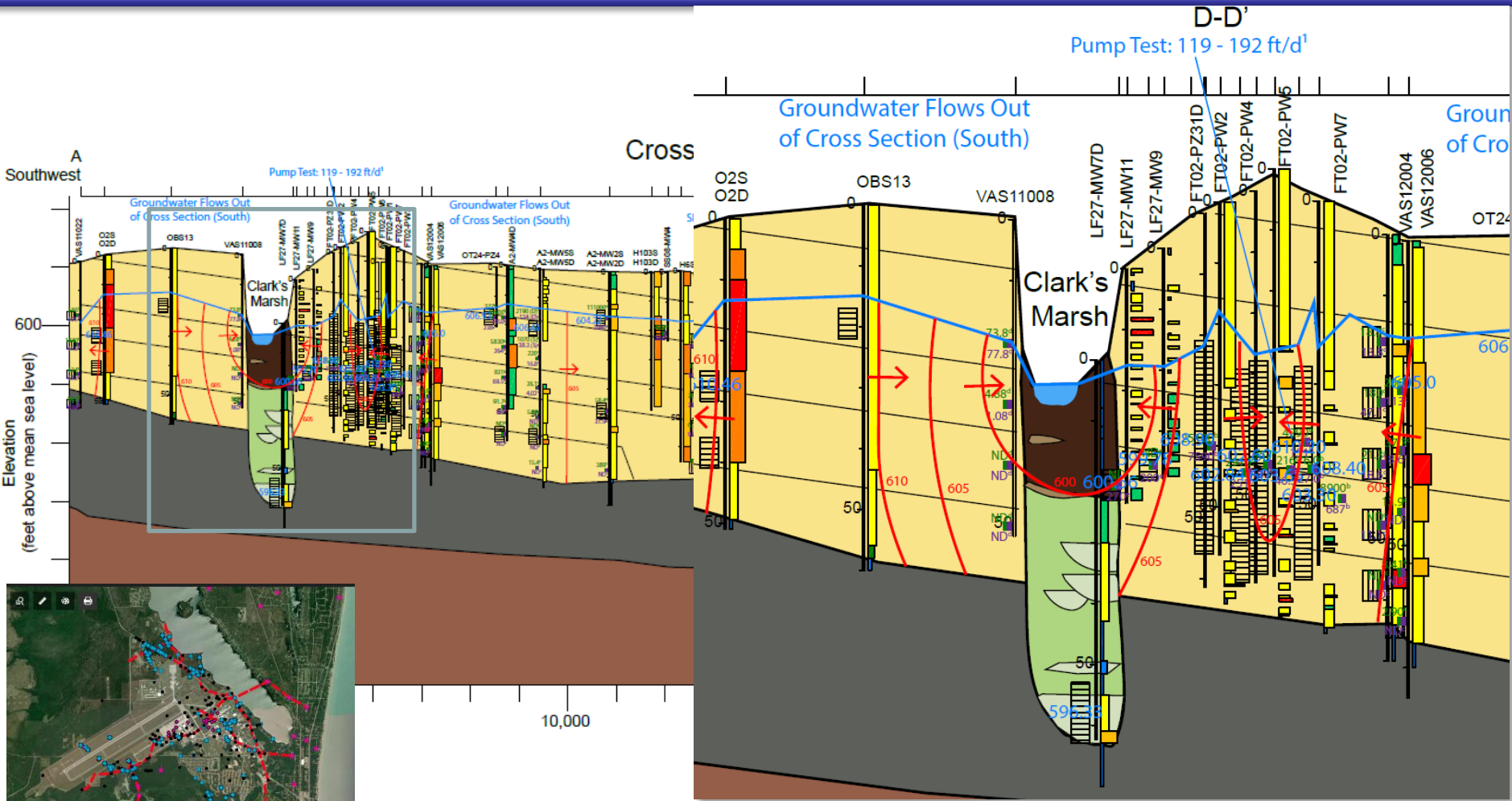
4/14/2021, 10:05:28 AM

- Nov 2020 Water Levels
- Potentiometric Contours (Nov 2020)



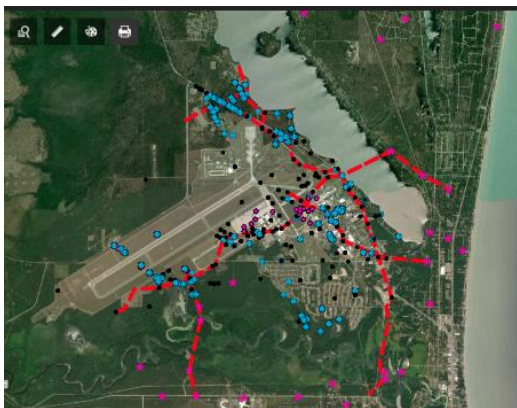
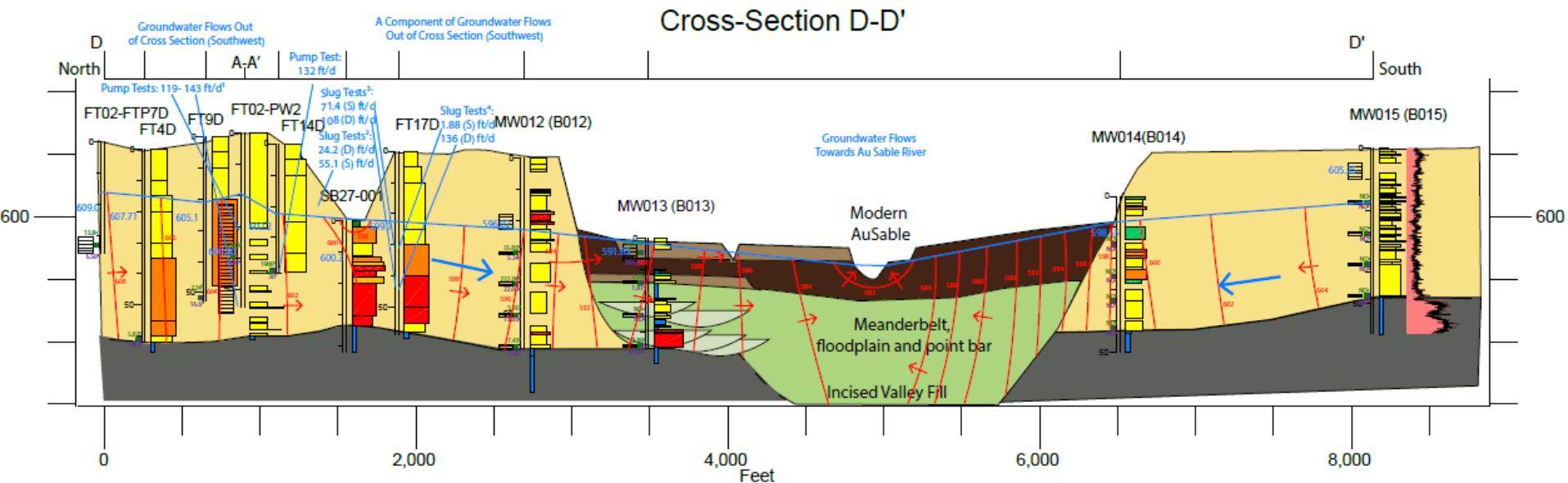


Clark's Marsh



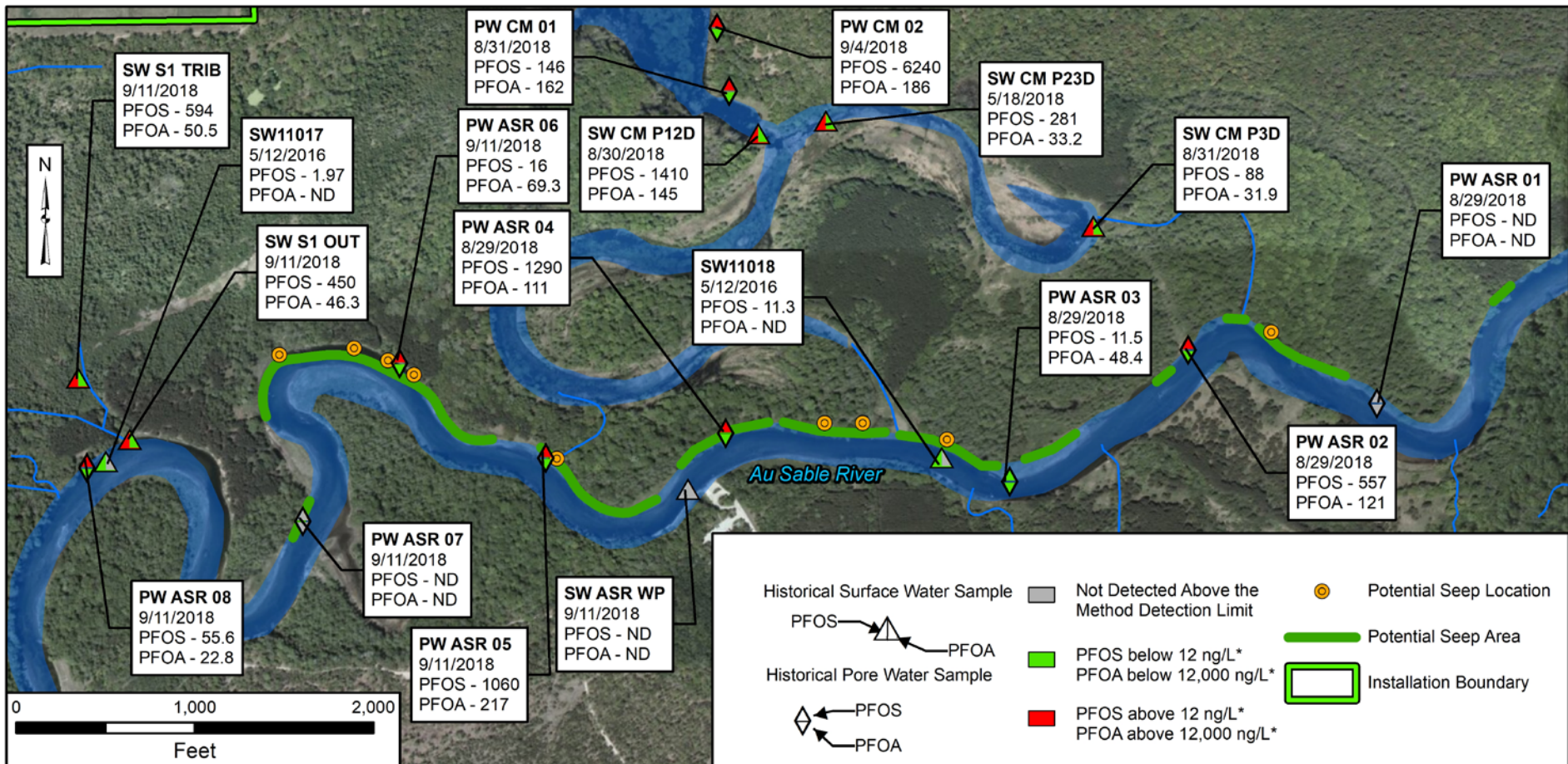


Au Sable River Valley and Paleo Valley





Former Wurtsmith AFB RAB Surface Water and Groundwater Seeps Along Au Sable River





CSM Data & Concepts Presented

■ Geology

- “Plumbing of the subsurface” and potential pathways for flow

■ Hydrogeology

- Observed groundwater elevations and directions of flow

■ Analytical

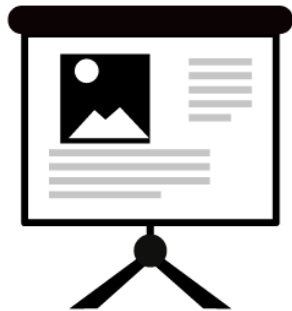
- Relationships between observed concentrations and the hydrogeology

■ Current Synthesis

- Groundwater discharge to surface water bodies on immediate eastern and southern margins likely
- Groundwater underflow off-base not currently indicated by data



Former Wurtsmith AFB RAB



Open Questions and Facilitated Data Exploration



Former Wurtsmith AFB RAB



RAB Member Questions



Former Wurtsmith AFB RAB



Public Comment



Former Wurtsmith AFB RAB Public Comment Period



Guidelines

- 01** | Indicate you want to make a comment (follow guidance)
- 02** | Wait until the facilitator states you can start your comment
- 03** | Three minute time limit
- 04** | RAB members will confer after your comment to see if a follow-up action is needed



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Conclusion, Adjournment