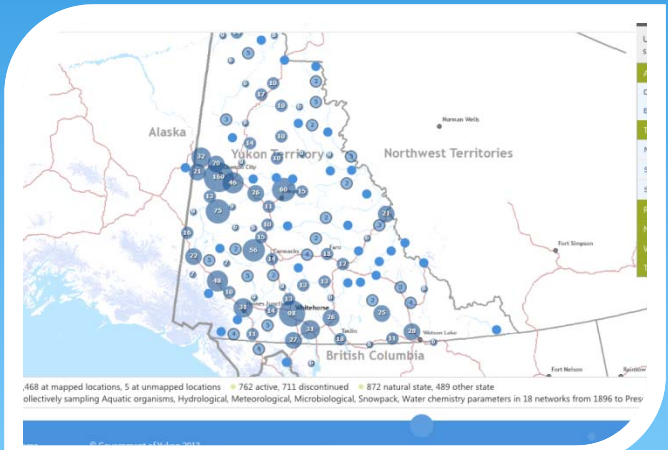
Existing and Planned Water Databases in Yukon



Erin Light

Water Information Specialist, Environment Yukon

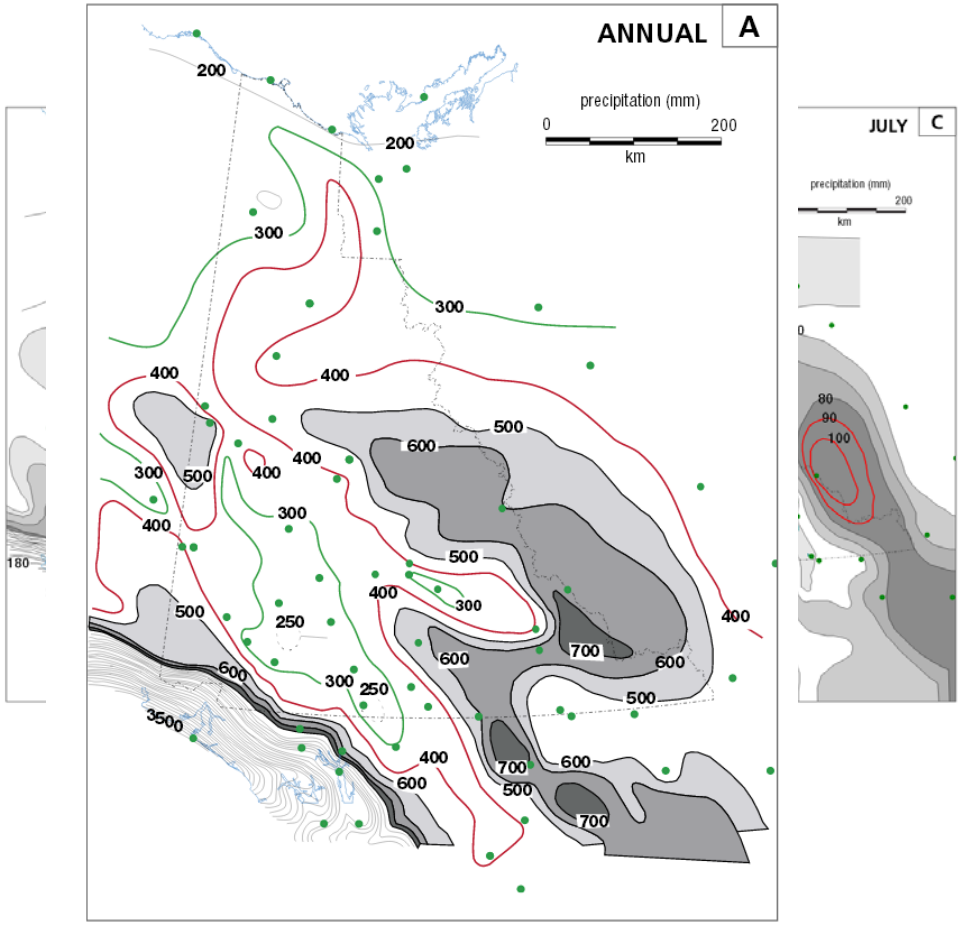
June 18, 2014

Yukon

Presentation Outline

1. Hydrological Setting
2. YukonWater Data Availability
3. Environment Yukon Databases
4. Future Database Maintenance and Development

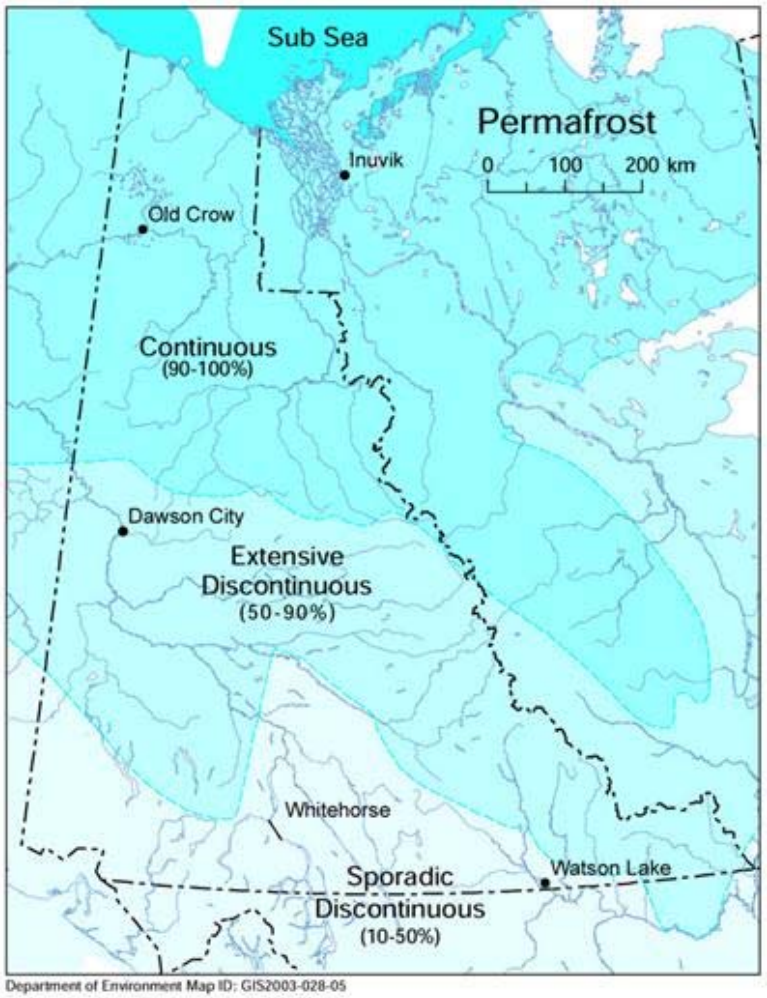
Hydrological Setting- Climate



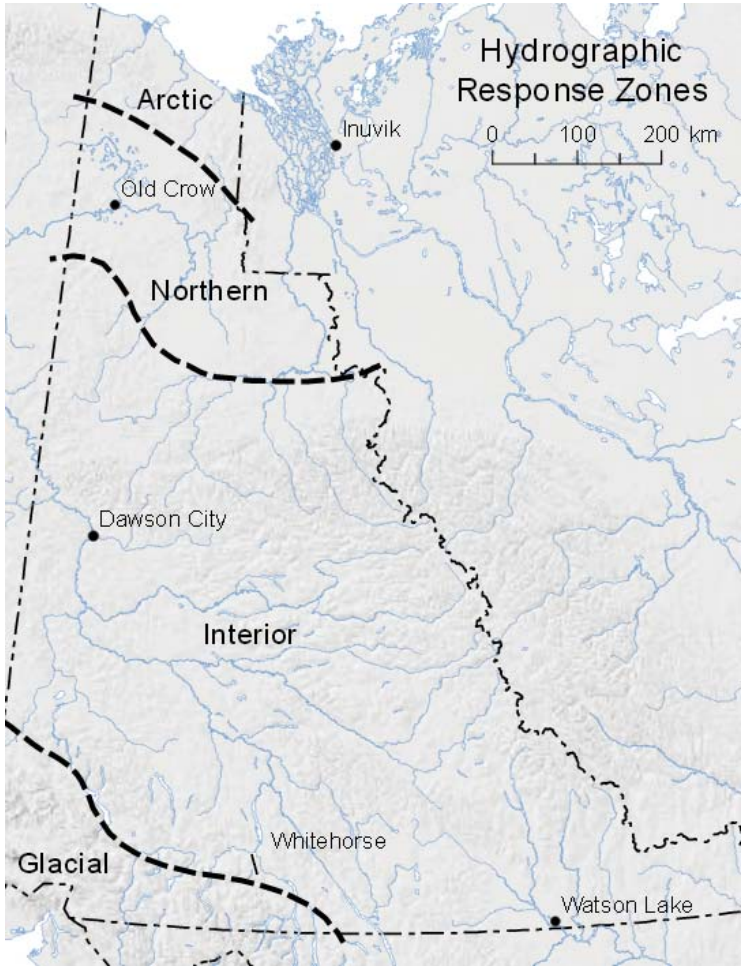
* Sub-arctic continental
* Long, cold winters (minimum, -62°C) and hot, dry summers (maximum, 36.1°C)
* Arid, low precipitation

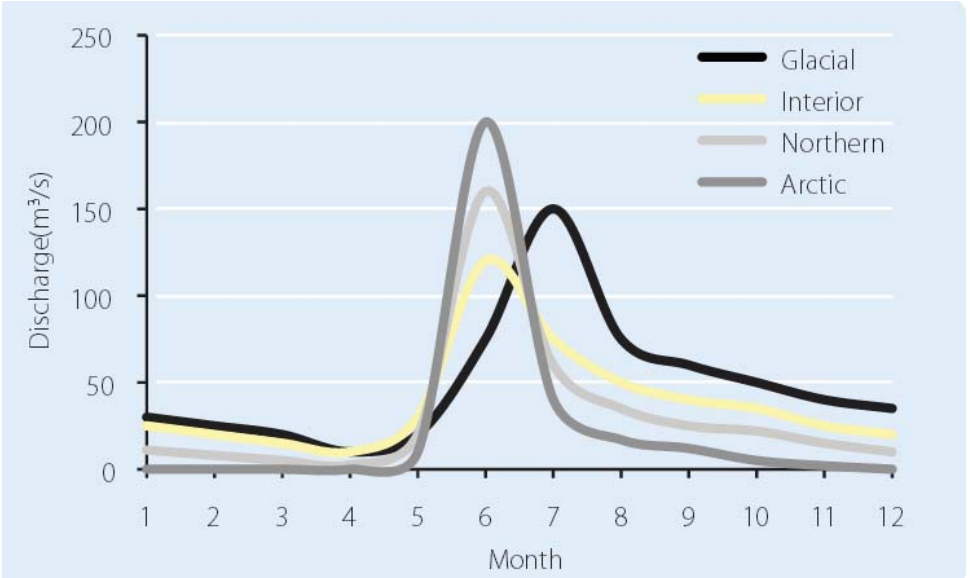
Hydrological Setting- Watersheds

Hydrological Setting- Permafrost



Hydrological Setting- Streamflow





Data Availability - yukonwater

Site Map Contact Us Search this website

yukonwater | Understanding Yukon Water | Managing Yukon Water | Monitoring Yukon Water | Water and You | Yukon Government

Yukon River at Dawson ice break-up, May 2, 2014

Latest
News and Updates

New study on water quality and Arctic grayling in Yukon

May 27, 2014

Scientist at University of Victoria collaborated with staff at Yukon Government and the Department of Fisheries and Oceans to conduct research on the impacts of elevated concentrations

North Yukon Water Quality Monitoring Network Added to Data Catalogue

May 27, 2014

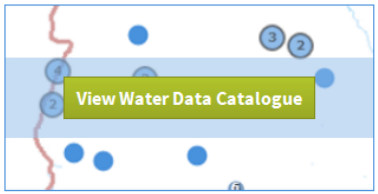
As part of the YukonWater Data Catalogue Annual Update, we have added a new network! The North Yukon Water Quality Monitoring Network is comprised of 35

Welcome to Yukon Water

Here, you'll find information about Yukon's water resources and how our water is used, managed and monitored. We encourage you to get involved and play a key role in the future of Yukon's water.

Water and You

Water Projects and Current Initiatives ►



Get
Connected

Follow us on Twitter

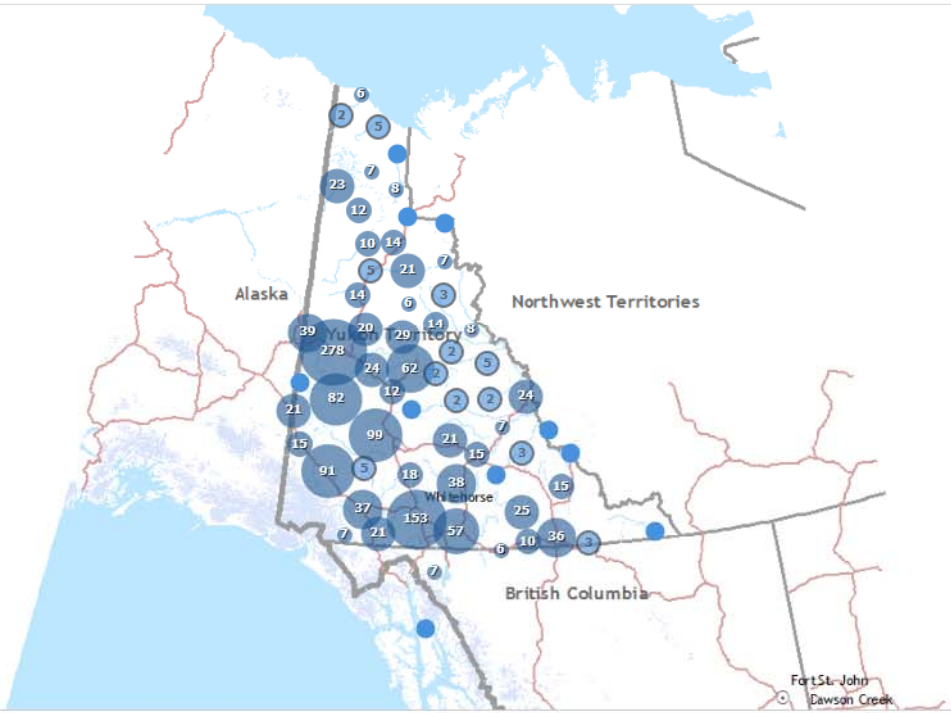
Follow us on Facebook

Data Availability - yukonwater

Site Map Contact Us Search this website

yukonwater | Understanding Yukon Water | Managing Yukon Water | Monitoring Yukon Water | Water and You | Yukon Government

yukonwater



Filter sites by... Clear all filters

Use these controls to define what water sample sites are displayed on the map.

- Area — Clear area
  - DRAW ON MAP
  - ENTER COORDINATES
- Types — Clear types
  - NETWORK TYPE
  - SAMPLE TYPE
  - SITE STATE
- Reporting sources — Clear sources
- Networks — Clear networks
- Watersheds — Clear watersheds
- Time period — Clear time

1,468 at mapped locations, 5 at unmapped locations · 762 active, 711 discontinued · 872 natural state, 489 other state

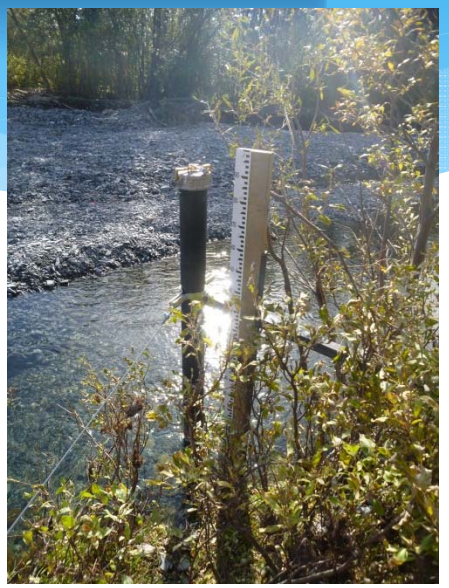
Collectively sampling Aquatic organisms, Hydrological, Meteorological, Microbiological, Snowpack, Water chemistry parameters in 18 networks from 1896 to Present

view and export detailed report

Home © Government of Yukon 2013

Data Availability - yukonwater

* Aquatic health
  * Biological composition of fish
  * Benthics
* Hydrometeorological
  * Streamflow
  * Groundwater
* Water Quality
  * Physical parameters
  * Nutrients
  * Organics
  * Metals



Data Availability - yukonwater

Agencies with metadata in Catalogue:

* Government of Yukon
* Federal Government
* Yukon First Nation Governments
* Cross-border organizations

Yukon Government

Canada

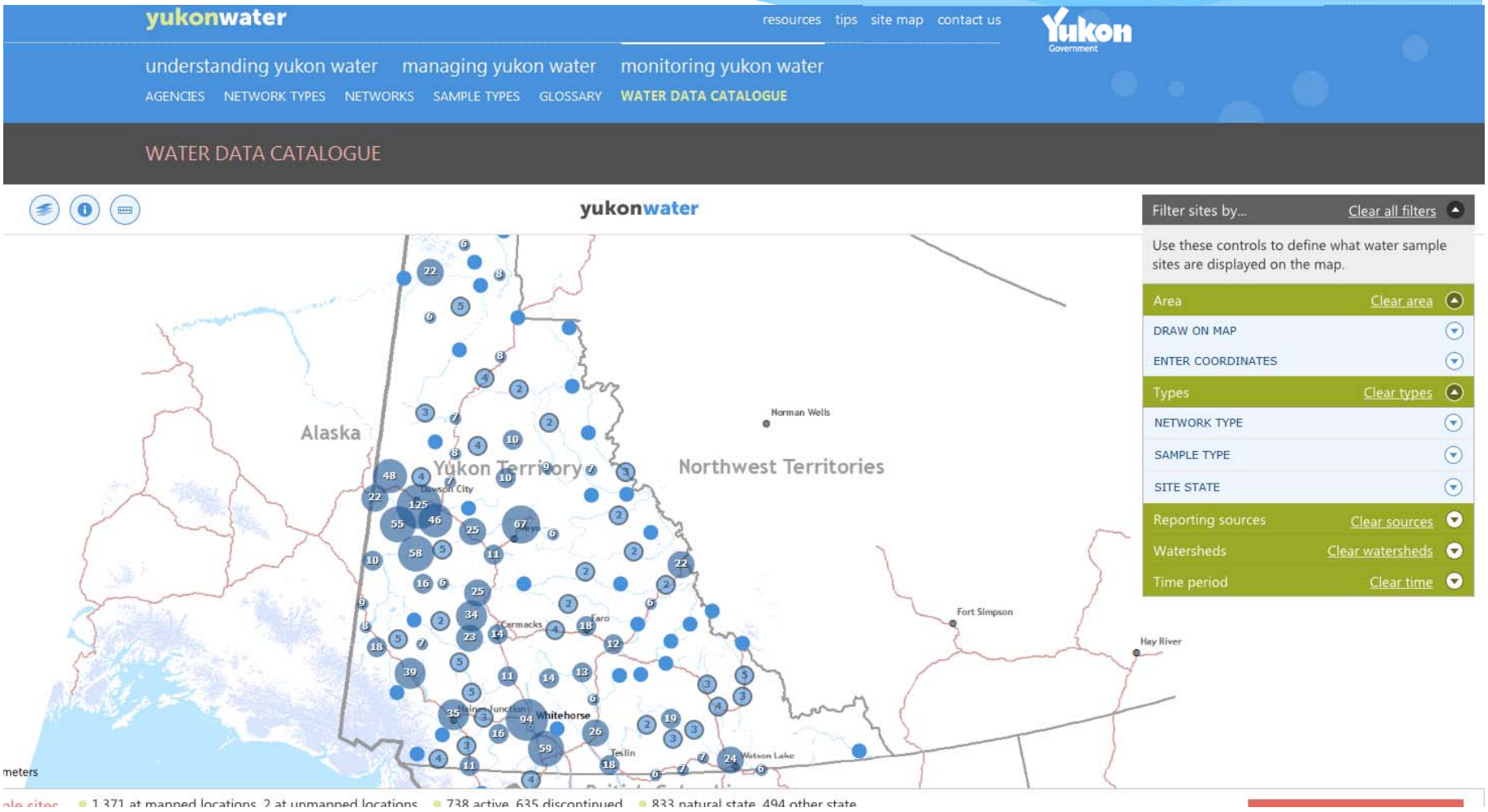
ONE PEOPLE-ONE RIVER
Yukon River Inter-Tribal Watershed Council

TA'AN KWÄCHÄN

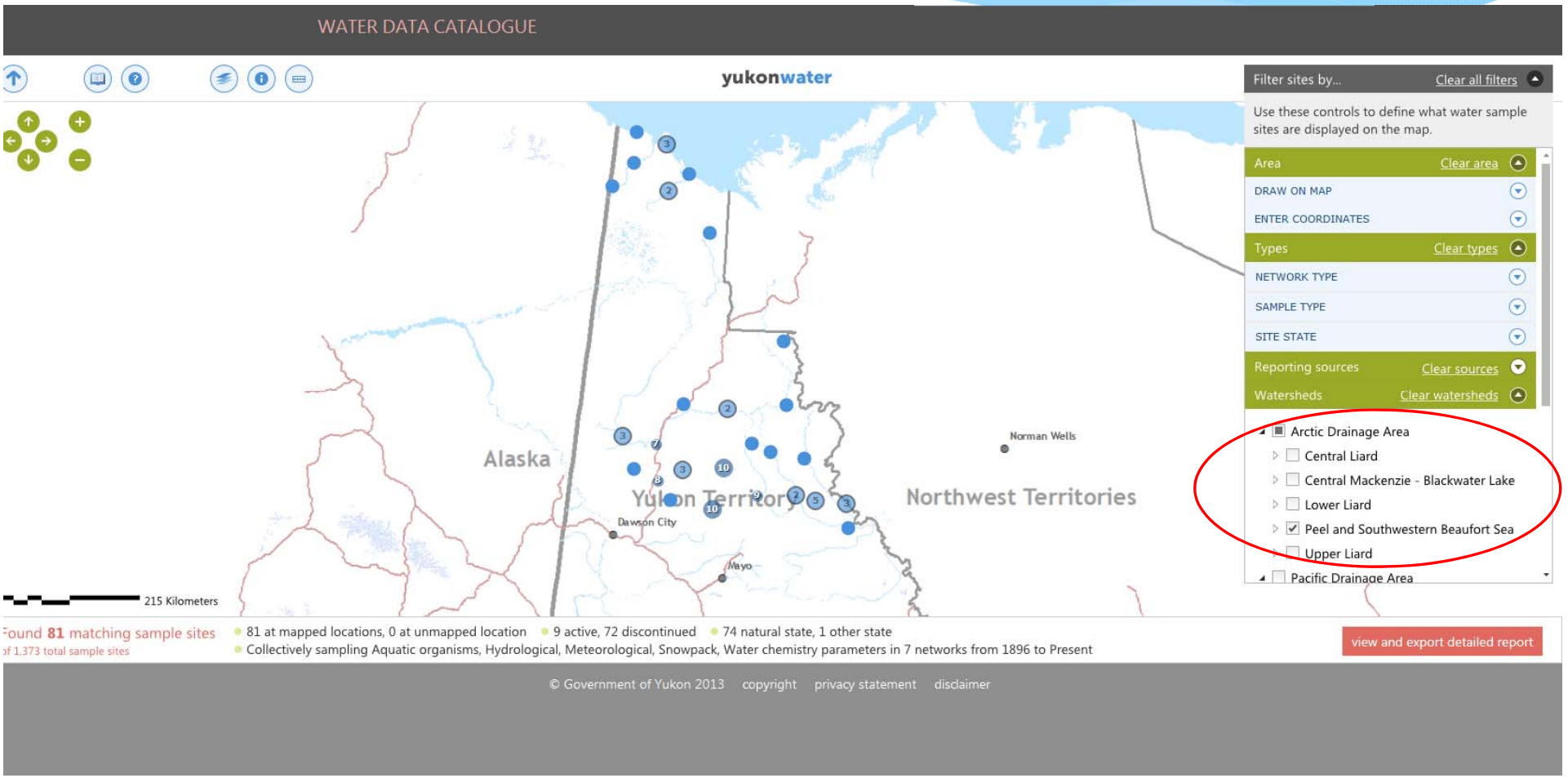
TRONDËK HWËCH'IN
HÄN NATION

KWANLIN DÜN
FIRST NATION

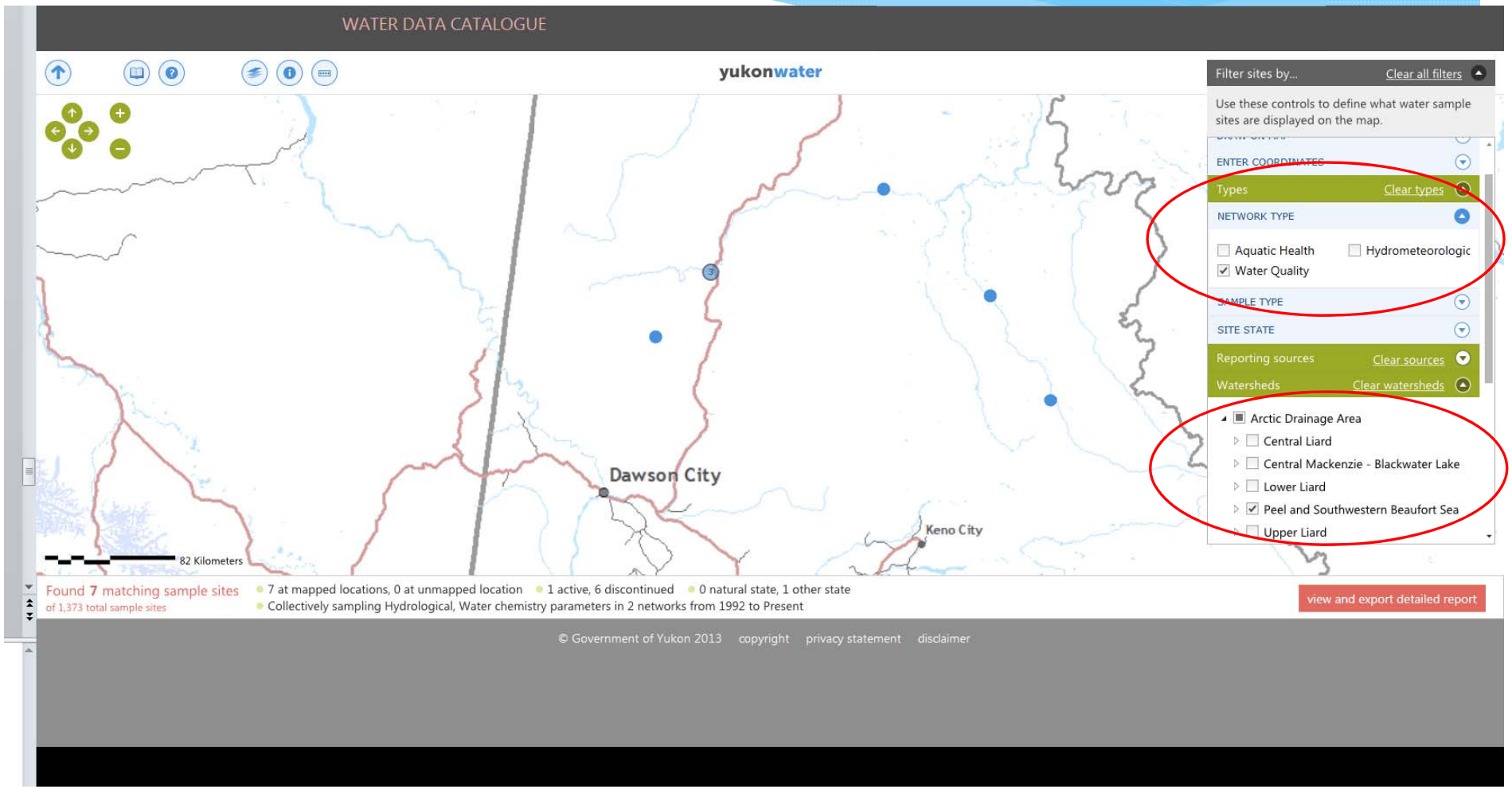
Data Availability - yukonwater



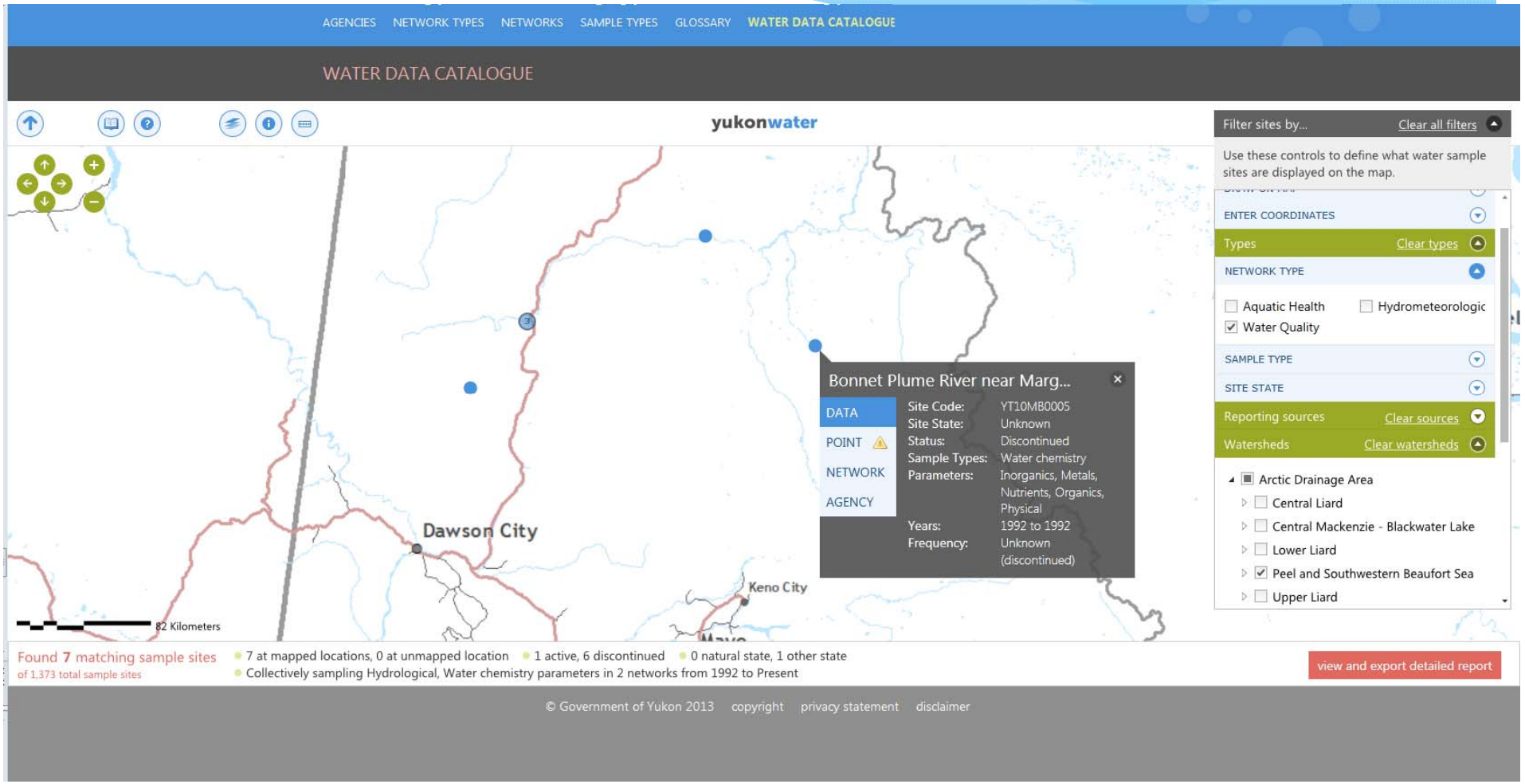
Data Availability - yukonwater



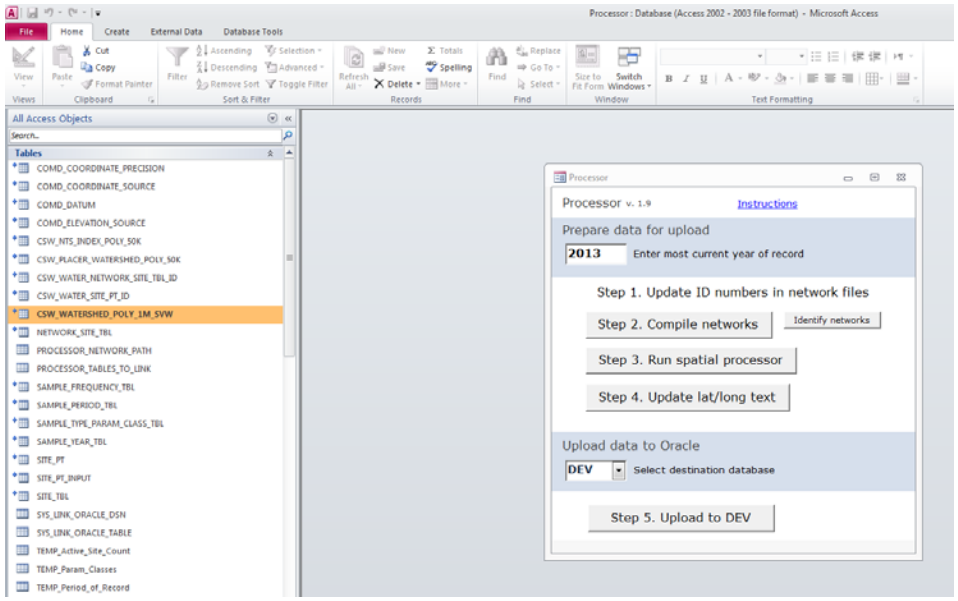
Data Availability - yukonwater

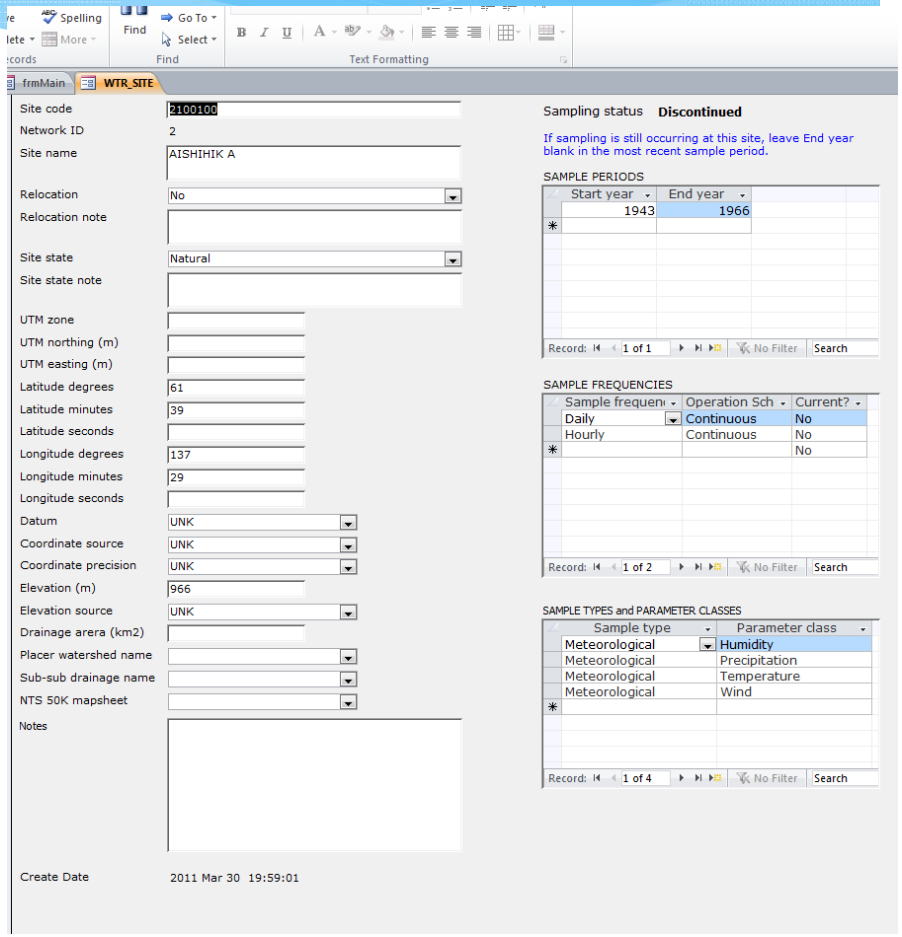


Data Availability - yukonwater



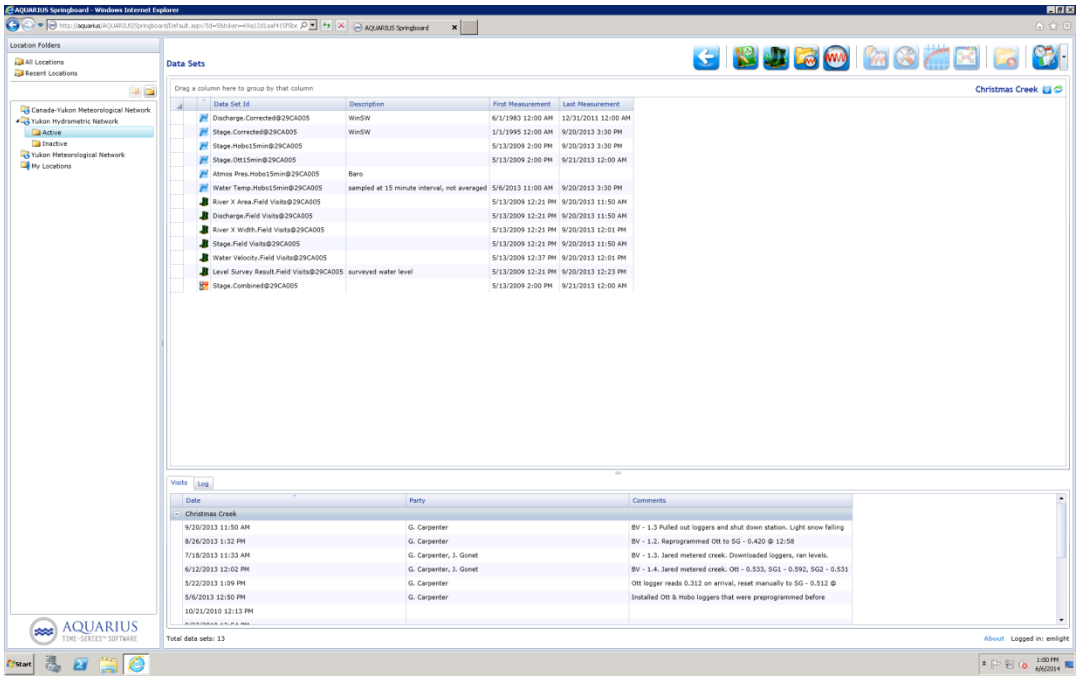
Data Availability - yukonwater





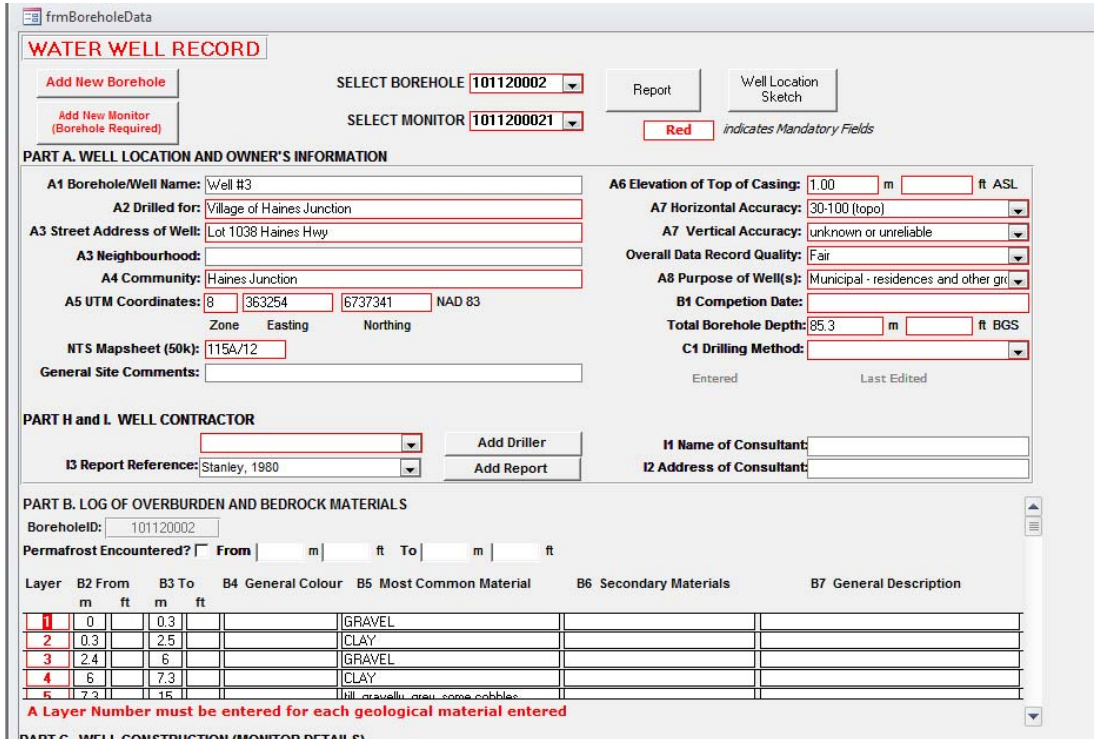
Environment Yukon Databases

* Aquarius- streamflow, discharge, hydrometerological, continuous water quality.



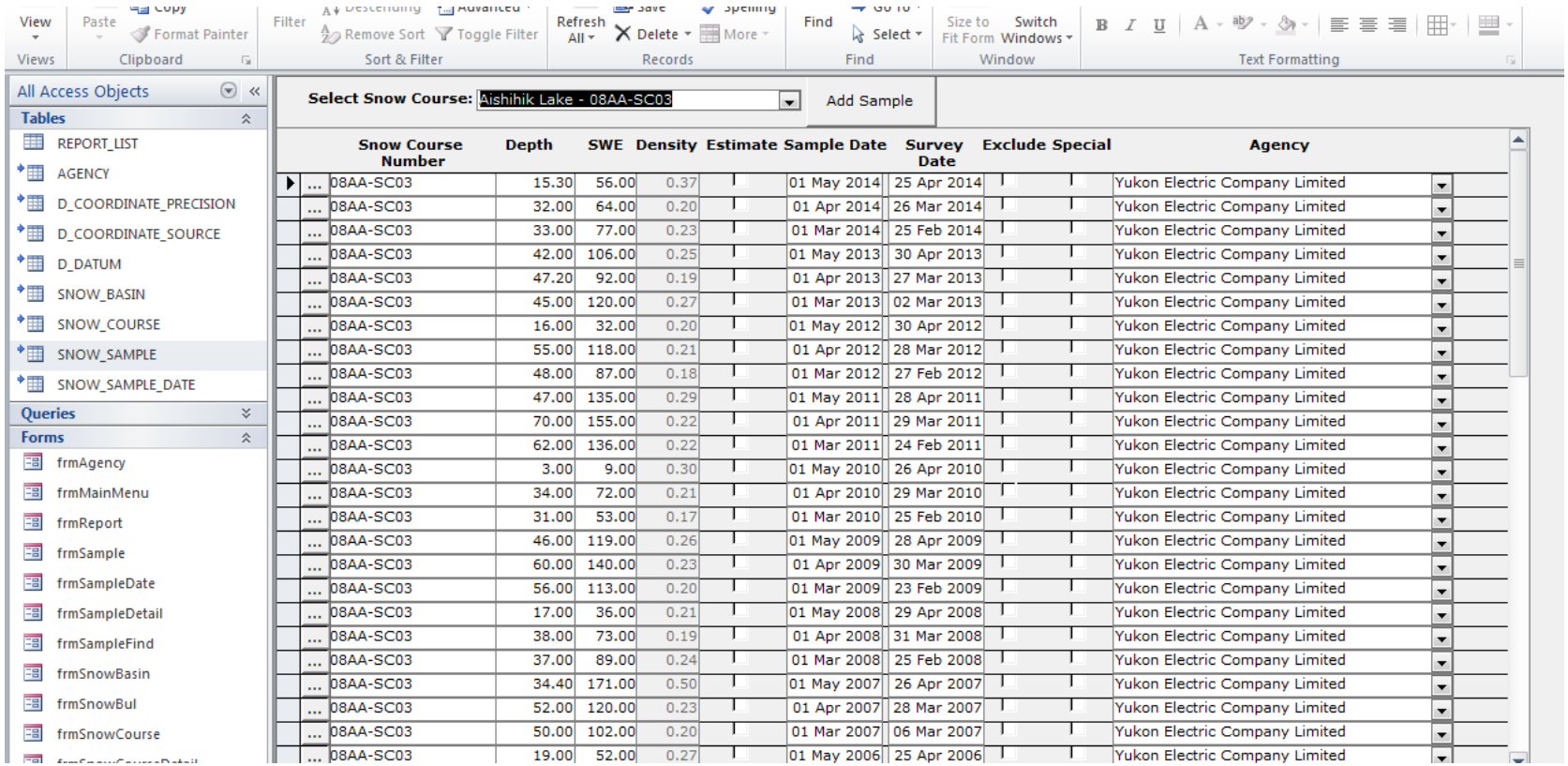
Environment Yukon Databases

* Yukon Water Well Registry- depth to water table, stratigraphy



Environment Yukon Databases

* Yukon Snow Survey Network- depth, SWE



Snow Course Number	Depth	SWE	Density	Estimate	Sample Date	Survey Date	Exclude	Special	Agency
08AA-SC03	15.30	56.00	0.37		01 May 2014	25 Apr 2014			Yukon Electric Company Limited
08AA-SC03	32.00	64.00	0.20		01 Apr 2014	26 Mar 2014			Yukon Electric Company Limited
08AA-SC03	33.00	77.00	0.23		01 Mar 2014	25 Feb 2014			Yukon Electric Company Limited
08AA-SC03	42.00	106.00	0.25		01 May 2013	30 Apr 2013			Yukon Electric Company Limited
08AA-SC03	47.20	92.00	0.19		01 Apr 2013	27 Mar 2013			Yukon Electric Company Limited
08AA-SC03	45.00	120.00	0.27		01 Mar 2013	02 Mar 2013			Yukon Electric Company Limited
08AA-SC03	16.00	32.00	0.20		01 May 2012	30 Apr 2012			Yukon Electric Company Limited
08AA-SC03	55.00	118.00	0.21		01 Apr 2012	28 Mar 2012			Yukon Electric Company Limited
08AA-SC03	48.00	87.00	0.18		01 Mar 2012	27 Feb 2012			Yukon Electric Company Limited
08AA-SC03	47.00	135.00	0.29		01 May 2011	28 Apr 2011			Yukon Electric Company Limited
08AA-SC03	70.00	155.00	0.22		01 Apr 2011	29 Mar 2011			Yukon Electric Company Limited
08AA-SC03	62.00	136.00	0.22		01 Mar 2011	24 Feb 2011			Yukon Electric Company Limited
08AA-SC03	3.00	9.00	0.30		01 May 2010	26 Apr 2010			Yukon Electric Company Limited
08AA-SC03	34.00	72.00	0.21		01 Apr 2010	29 Mar 2010			Yukon Electric Company Limited
08AA-SC03	31.00	53.00	0.17		01 Mar 2010	25 Feb 2010			Yukon Electric Company Limited
08AA-SC03	46.00	119.00	0.26		01 May 2009	28 Apr 2009			Yukon Electric Company Limited
08AA-SC03	60.00	140.00	0.23		01 Apr 2009	30 Mar 2009			Yukon Electric Company Limited
08AA-SC03	56.00	113.00	0.20		01 Mar 2009	23 Feb 2009			Yukon Electric Company Limited
08AA-SC03	17.00	36.00	0.21		01 May 2008	29 Apr 2008			Yukon Electric Company Limited
08AA-SC03	38.00	73.00	0.19		01 Apr 2008	31 Mar 2008			Yukon Electric Company Limited
08AA-SC03	37.00	89.00	0.24		01 Mar 2008	25 Feb 2008			Yukon Electric Company Limited
08AA-SC03	34.40	171.00	0.50		01 May 2007	26 Apr 2007			Yukon Electric Company Limited
08AA-SC03	52.00	120.00	0.23		01 Apr 2007	28 Mar 2007			Yukon Electric Company Limited
08AA-SC03	50.00	102.00	0.20		01 Mar 2007	06 Mar 2007			Yukon Electric Company Limited
08AA-SC03	19.00	52.00	0.27		01 May 2006	25 Apr 2006			Yukon Electric Company Limited

Environment Yukon Databases

* EQWin- water quality compliance samples

Control Center | Samples

Post or undo changes to active record

Stn.Code	eq Smpl #	Sampling Session	Smpl Date	Sample Class	Start Date/Time	Depth - To
T-1	T-1_29-May-13_LP	2013-05	5/29/2013 3:56:59 PM	LP	5/29/2013	
WRSS	WRSS_29-May-13_LP	2013-05	5/29/2013 3:13:00 PM	LP	5/29/2013	
MW06-10S	MW06-10S_29-05-13_LP	2013-05	5/29/2013 2:24:59 PM	LP	5/29/2013	
MW06-10S	MW06-10S_29-05-13LQS	2013-05	5/29/2013 2:24:59 PM	LQS	5/29/2013	
MW06-10M	MW06-10M_29-05-13_LP	2013-05	5/29/2013 12:00:00 PM	LP	5/29/2013	
W-81	W-81_28-May-13_LP	2013-05	5/28/2013 5:24:59 PM	LP	5/28/2013	
W-15	W-15_28-May-13_LP	2013-05	5/28/2013 4:36:59 PM	LP	5/28/2013	
W-82	W-82_28-May-13_LP	2013-05	5/28/2013 2:19:00 PM	LP	5/28/2013	
W-85	W-85_27-May-13_LM	2013-05	5/27/2013 1:11:00 PM	LM	5/27/2013	
W-16	W-16_26-May-13_LP	2013-05	5/26/2013 4:39:59 PM	LP	5/26/2013	
W-31	W-31_24-May-13_LQS	2013-05	5/24/2013 1:18:59 PM	LQS	5/24/2013	
W-31	W-31_24-May-13_LP	2013-05	5/24/2013 1:18:59 PM	LP	5/24/2013	
WRSS	WRSS_21-May-13_LM	2013-05	5/21/2013 1:25:00 PM	LM	5/21/2013	
MW05-5B	MW05-5B_19-May-13_LP	2013-05	5/19/2013 2:44:59 PM	LP	5/19/2013	
MW05-5A	MW05-5A_19-May-13_LP	2013-05	5/19/2013 2:15:59 PM	LP	5/19/2013	
T-1	T-1_15-May-13_LP	2013-05	5/15/2013	LP	5/15/2013	
MW06-12S	MW06-12S_14-05-13_LP	2013-05	5/14/2013	LP	5/14/2013	
MW08-13	MW08-13_12-May-13_LP	2013-05	5/12/2013	LP	5/12/2013	
W-73	W-73_11-May-13_LP	2013-05	5/11/2013 4:57:59 PM	LP	5/11/2013	
W-72	W-72_11-May-13_LP	2013-05	5/11/2013 4:39:59 PM	LP	5/11/2013	
W-71	W-71_11-May-13_LP	2013-05	5/11/2013 4:25:59 PM	LP	5/11/2013	
W-21	W-21_11-May-13_LP	2013-05	5/11/2013 2:26:59 PM	LP	5/11/2013	
W-22	W-22_11-May-13_LP	2013-05	5/11/2013 12:58:59 PM	LP	5/11/2013	
W-40	W-40_11-May-13_LP	2013-05	5/11/2013 12:36:00 PM	LP	5/11/2013	
MW05-6B	MW05-6B_08-May-13_LM	2013-05	5/8/2013 12:09:59 PM	LM	5/8/2013	
MW05-6A	MW05-6A_08-May-13_LM	2013-05	5/8/2013 11:24:59 AM	LM	5/8/2013	
MW06-8S	MW06-8S_07-May-13_LP	2013-05	5/7/2013 4:20:00 PM	LP	5/7/2013	
MW06-8D	MW06-8D_07-May-13_LP	2013-05	5/7/2013 12:45:00 PM	LP	5/7/2013	
MW06-8M	MW06-8M_05-May-13_LP	2013-05	5/5/2013 7:05:00 PM	LP	5/5/2013	

Sample number: T-1_29-May-13_LP
Station: T-1
Sample class: LP
Date/time collected: 5/29/2013
Date/time started: 5/29/2013
Sampling method:
3:56:59 PM
12:00:00 AM
Sampled by:
Sample Comments:
N-NO23 and N-NO2 RDL raised due to sample matrix interference. Br RDL raised due to sample matrix interference.

Sample Results

Comments...

Parameter Name	Param.Code	Units	Alt Result No	Result	R
Acidity	Acidity	mgCaCO3/L	0	<0.50	
Ag-D	Ag-D	mg/L	0	0.000132	
Ag-T	Ag-T	mg/L	0	0.000478	
Al-D	Al-D	mg/L	0	0.625	
Alk-T	Alk-T	mgCaCO3/L	0	38.7	
Al-T	Al-T	mg/L	0	0.657	
As-D	As-D	mg/L	0	0.00765	
As-T	As-T	mg/L	0	0.00883	
Ba-D	Ba-D	mg/L	0	0.201	
Ba-T	Ba-T	mg/L	0	0.194	
B-D	B-D	mg/L	0	<0.50	

Future of Databases

* Aquarius- add data from other branches within Environment Yukon (Parks, Standards and Approvals)
* Yukon Water Well Registry Enhancements
* Other…
  * Waterline improvements

Thanks!

Erin.Light@gov.yk.ca