H+ Database

Enigma KOM, Paris 31/01/2017

Database

Purposes	Uses

• Enables long-term knowledge preservation
• Provides a consolidated view of data
  • Different sites, providers
  • « One stop shopping » acces point
• Data extraction : availability for the scientific community
	• Integration
	• Extraction
	• Visualization
	• Web site and Web portal

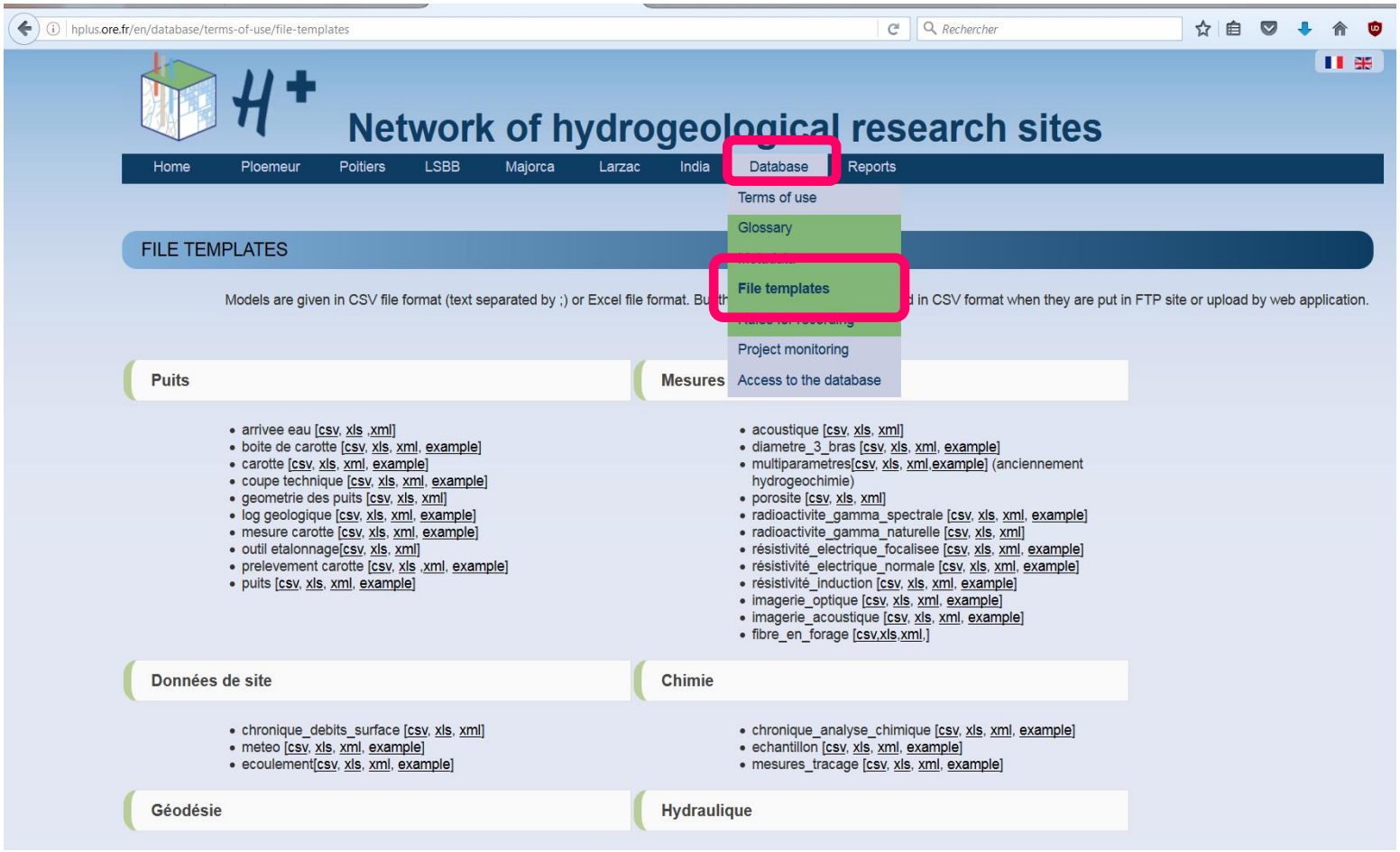
Database : data types

- Initiated in 2004
- Heterogeneous data :
  - chronic or one-time experience with hydrogeological measures from 1990 to now ~ 500 millions of data
- Plateform-based database : well, logs, core, ...
- Metadata and data

1. How to insert data into the database

Use one of the 50 defined models on 8 thematics :

- http://hplus.ore.fr/en/database/terms-of-use/file-templates

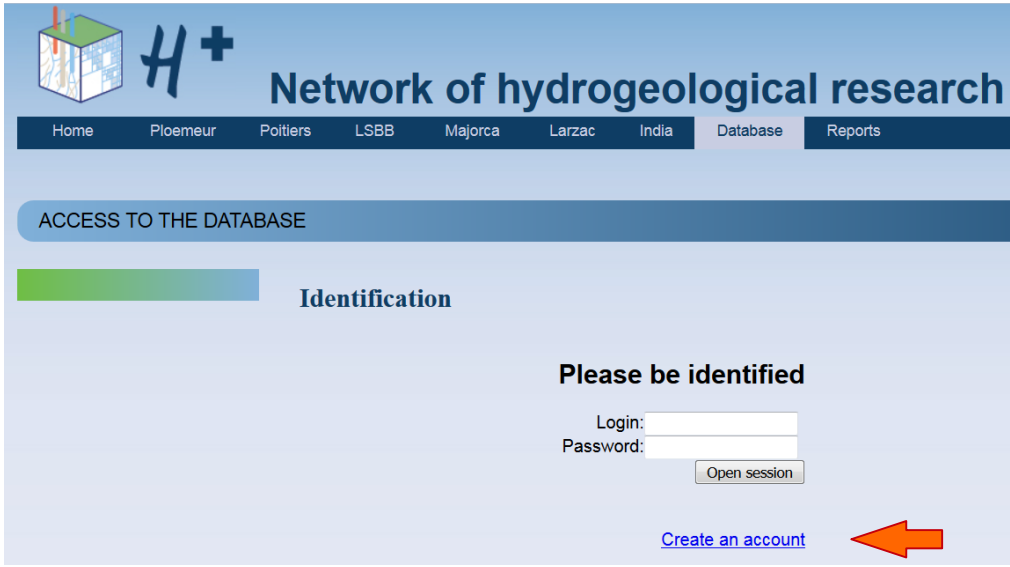


1. How to insert data into the database

! Conditions of access to log in : Charter

- Upload of the data file
- Test
- Technical validation
- Insertion
- Scientific validation

- ⇒ data available Day+1



	A	B	C	D	E	F	G	H	I	J	K	L
1	email address											
2												
3	site name	Borehole name	experience	date	time	z_definition	z_definition reference	z	pumping rate	temperature	upper	lower
4	*appartient à la liste des sites (obligatoire)*	*appartient à la liste des puits (obligatoire)*	*appartient à la liste des experiences (obligatoire)*	*jj/mm/aaaa (obligatoire)*	*hh:mm:ss (optionnel)*	*texte libre précisant quel point de référence a été pris pour calculer la profondeur enregistrée dans la colonne z_relatif*	*altitude NGF (par rapport au niveau de la mer) en mètres du point qui sert de définition des profondeurs décrit dans la colonne definition z_relatif*	*profondeur en mètres calculée par rapport au point de définition (optionnel)*	*en m3/s (obligatoire)*	*en °C (optionnel)*	*limite supérieure de la chambre d'imposition du débit (optionnel)*	*limite inférieure de la chambre d'imposition du débit (optionnel)*
5												

2. Data Extraction

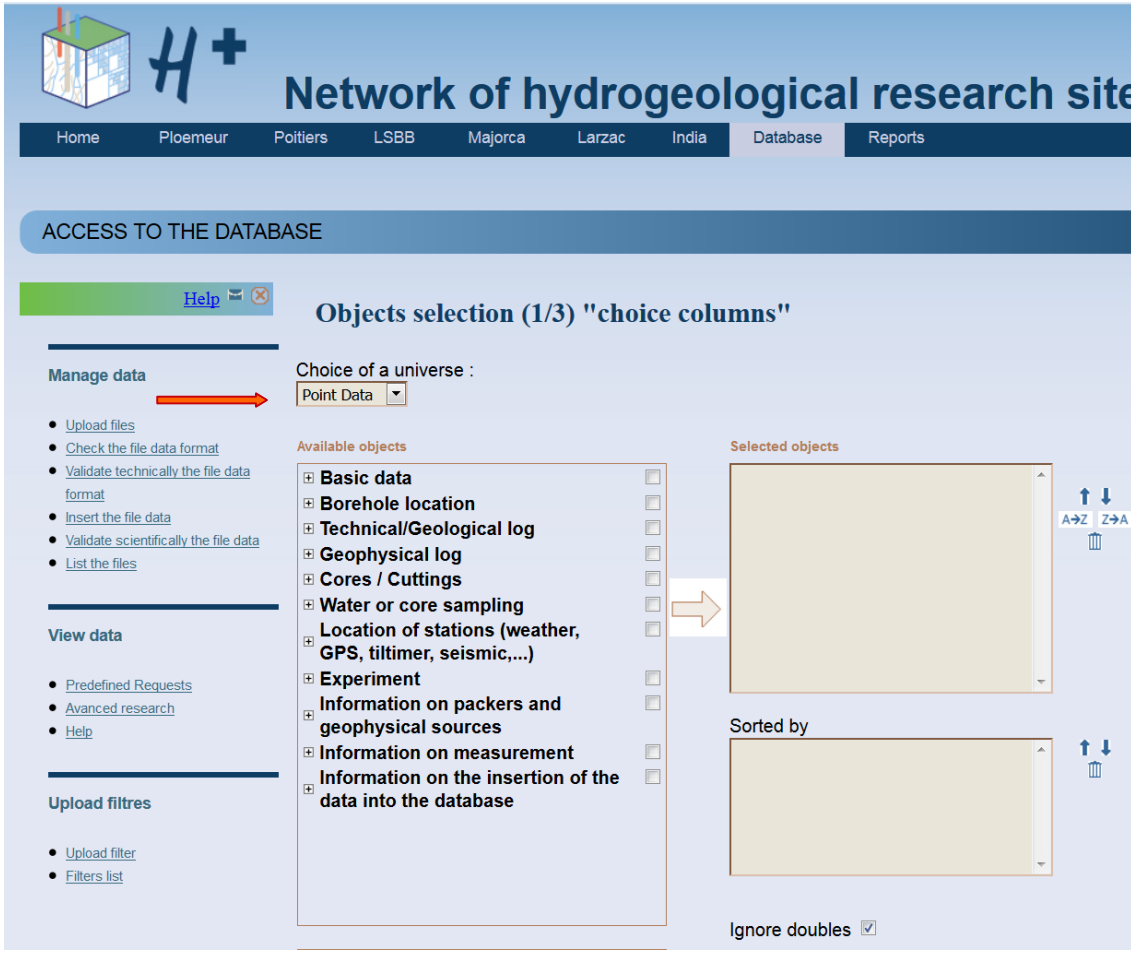
2 methods :

Easy Interface or full query

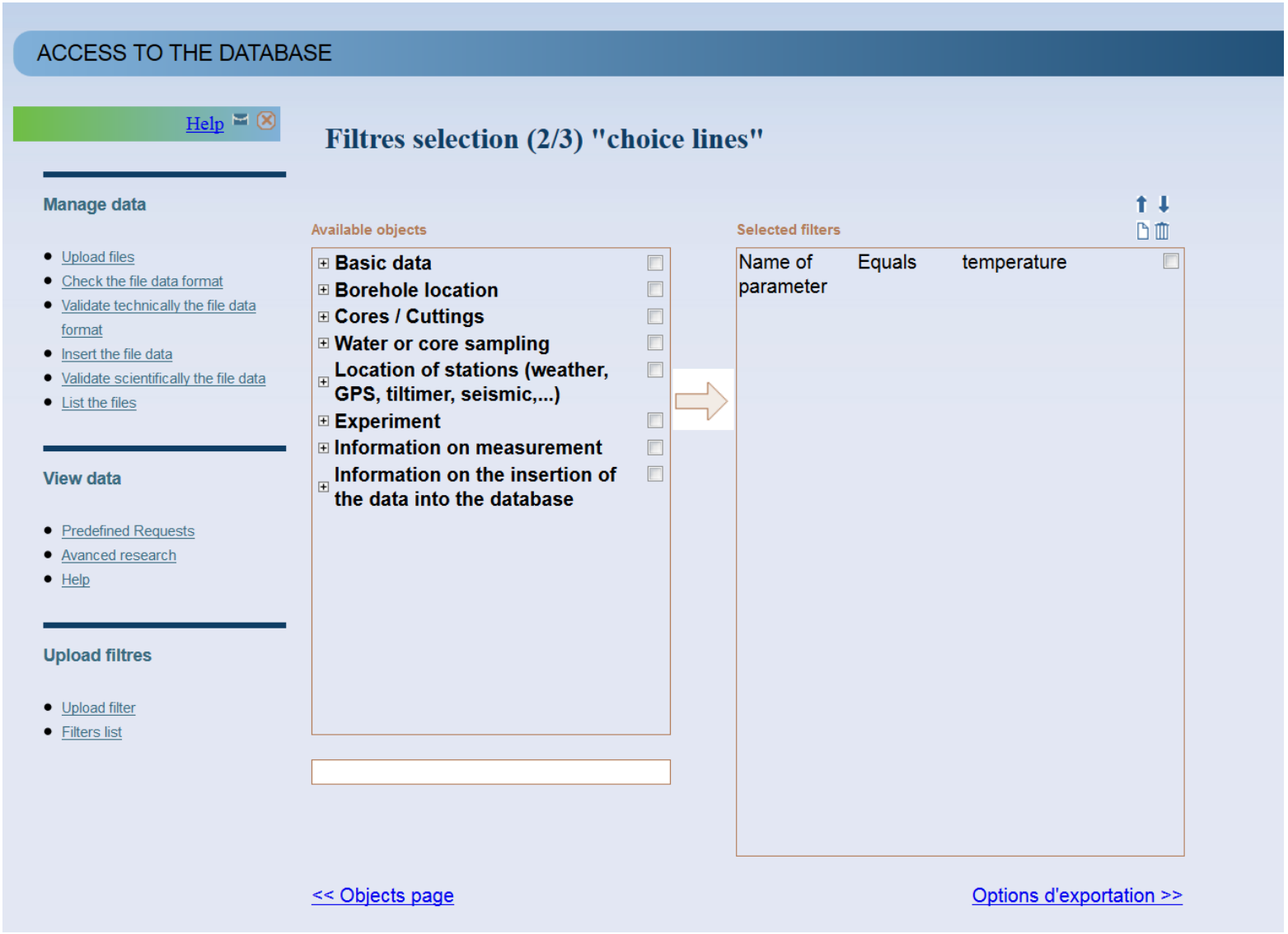
Requests : background SQL (Standard Query Language)

- Connect
- Choose univers (Point, Spatial)
- Choose column result
- Select line filter
- How to export

⇒ result send by email



2. Data Extraction (1) : complete



ACCESS TO THE DATABASE

Help

Results (3/3)

Manage data

- Upload files
- Check the file data format
- Validate technically the file data format
- Insert the file data
- Validate scientifically the file data
- List the files

View data

Summarization | Preview | Export | Save request

Format : csv

Name of the file : .html

Compression ? yes no

Your e-mail address :

Export

ACCESS TO THE DATABASE

Help

Results (3/3)

Manage data

- Upload files
- Check the file data format
- Validate technically the file data format
- Insert the file data
- Validate scientifically the file data
- List the files

View data

- Predefined Requests
- Avanced research
- Help

Upload filtres

- Upload filter
- Filters list

Your query is executing now. In function of the size of the database, it may take a while. You will receive an e-mail when the results are available.

Summarization | Preview | Export | Save request

Objects :

- Name of parameter
- Value
- Name of borehole
- Name of the site associated to the borehole

Filters :

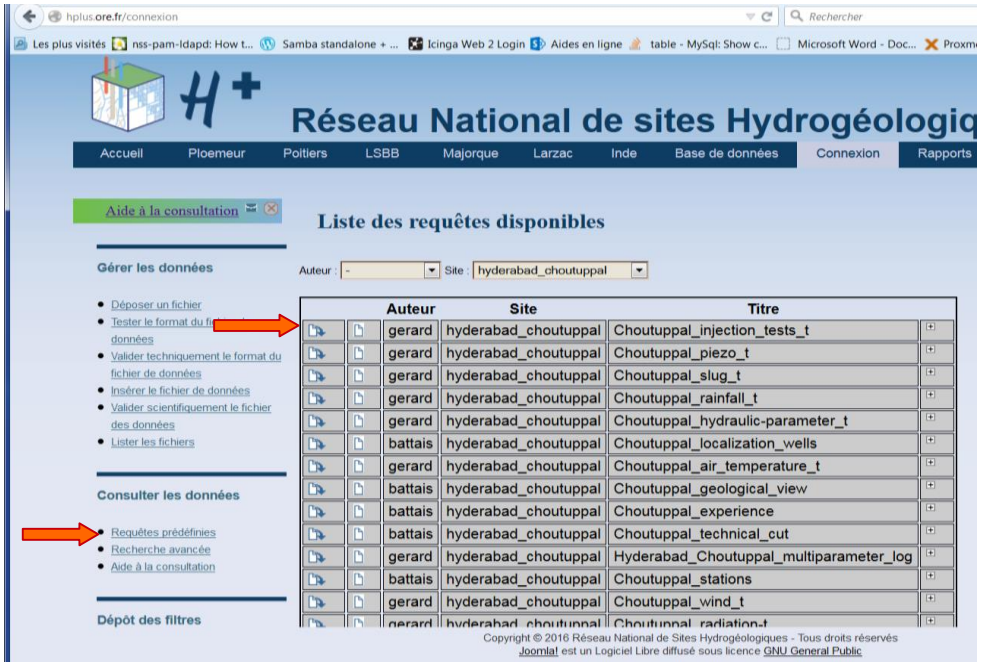
- Name of borehole Equals b1
- Et Name of the site associated to the borehole Equals ploemeur
- Et Name of parameter Equals nitrate

<< Filters page

2. Data Extraction (2)

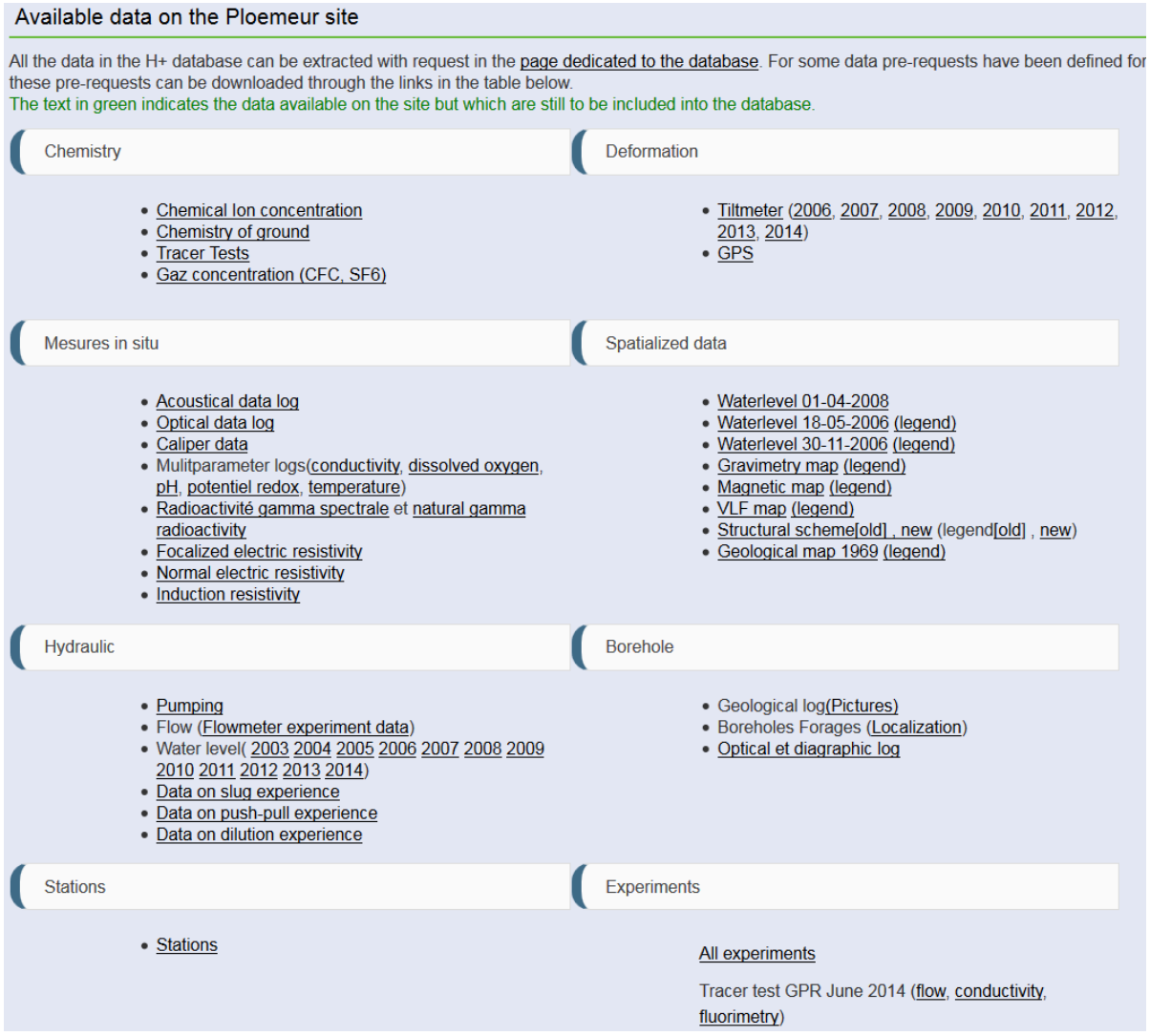
The work is already done : request already exists => just choose

- http://hplus.ore.fr/en/database/access-database
- Log in
- Predefined requests (author/site)
- Export to an email address



2. Data Extraction

Some predefined requests available through the website http://hplus.ore.fr/en/



Available data on the Ploemeur site

All the data in the H+ database can be extracted with request in the page dedicated to the database. For some data pre-requests have been defined for these pre-requests can be downloaded through the links in the table below.
The text in green indicates the data available on the site but which are still to be included into the database.

Chemistry

- Chemical Ion concentration
- Chemistry of ground
- Tracer Tests
- Gaz concentration (CFC, SF6)

Deformation

- Tiltmeter (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014)
- GPS

Mesures in situ

- Acoustical data log
- Optical data log
- Caliper data
- Mulitparameter logs(conductivity, dissolved oxygen, pH, potentiel redox, temperature)
- Radioactivité gamma spectrale et natural gamma radioactivity
- Focalized electric resistivity
- Normal electric resistivity
- Induction resistivity

Spatialized data

- Waterlevel 01-04-2008
- Waterlevel 18-05-2006 (legend)
- Waterlevel 30-11-2006 (legend)
- Gravimetry map (legend)
- Magnetic map (legend)
- VLF map (legend)
- Structural scheme[old] , new (legend[old] , new)
- Geological map 1969 (legend)

Hydraulic

- Pumping
- Flow (Flowmeter experiment data)
- Water level(2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014)
- Data on slug experience
- Data on push-pull experience
- Data on dilution experience

Borehole

- Geological log(Pictures)
- Boreholes Forages (Localization)
- Optical et diagraphic log

Stations

- Stations

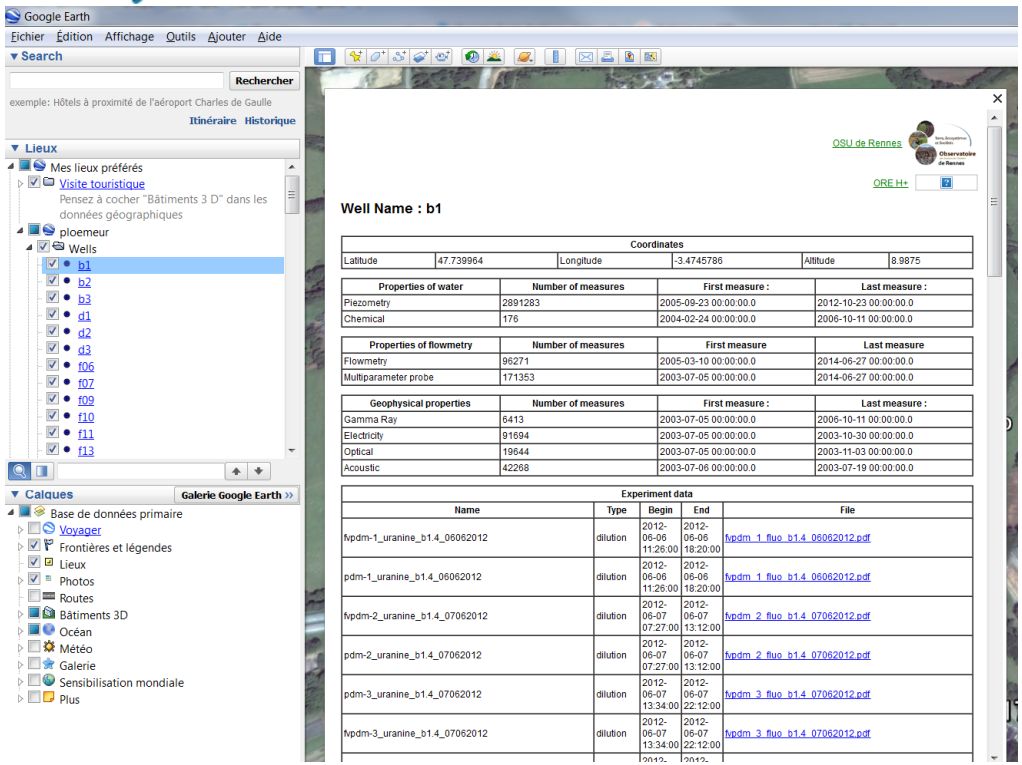
Experiments

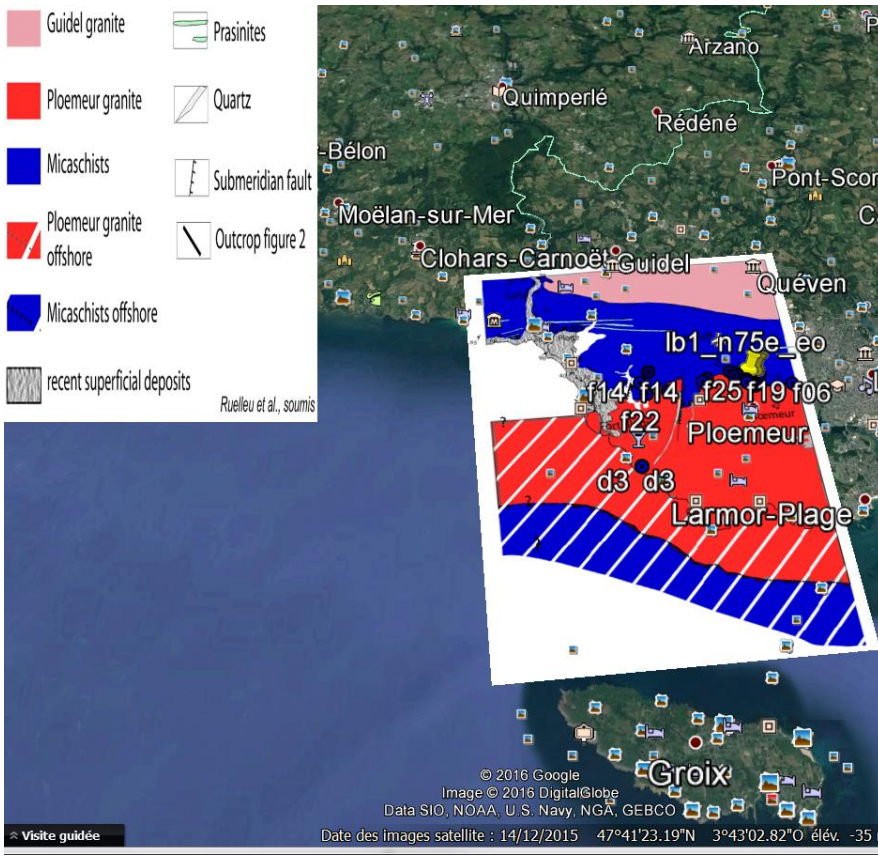
All experiments

Tracer test GPR June 2014 (flow, conductivity, fluorimetry)

3. Visualization :

Upload KMZ of each site and local visualization on google Earth

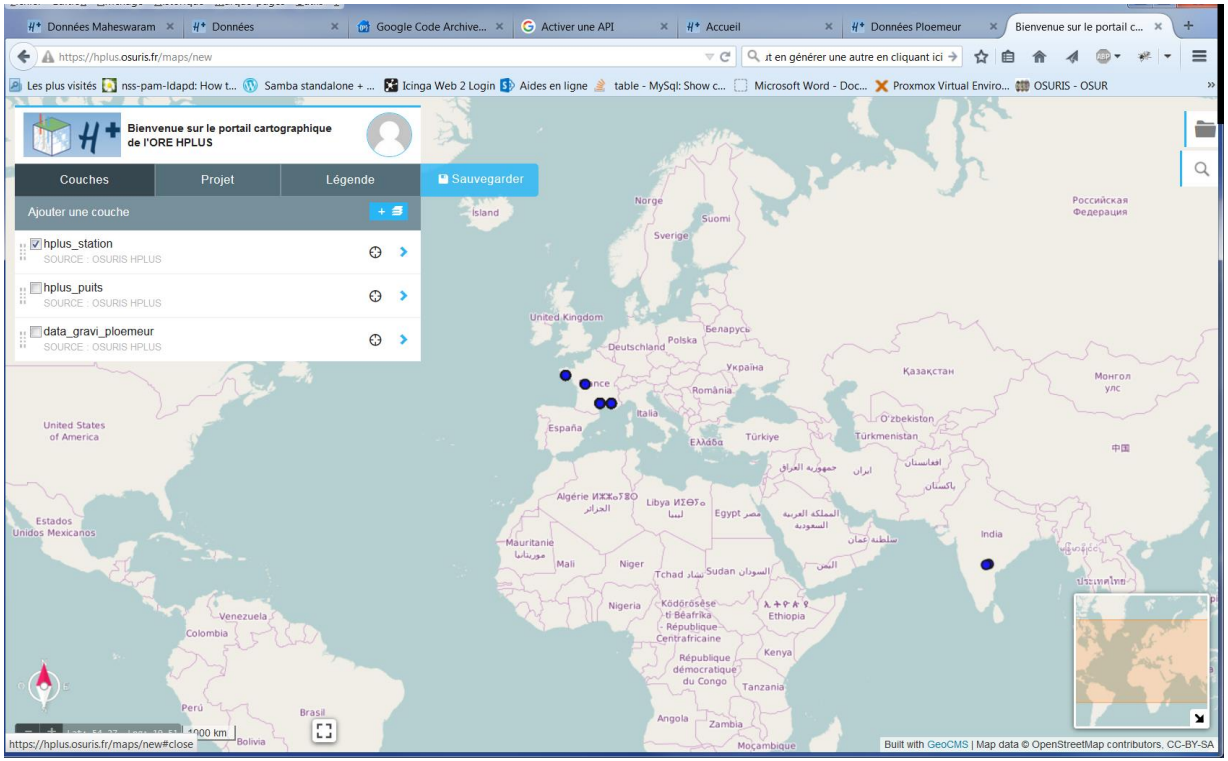




Spatialized data visualization
Portal : hplus.osuris.fr

- Webservices : web mapping service, web file service …
- Interoperable
- Various Shapes (BRGM, IGN …) from database or build

- 3 softwares :
  - metadata inventory
  - data inventory
  - access portal



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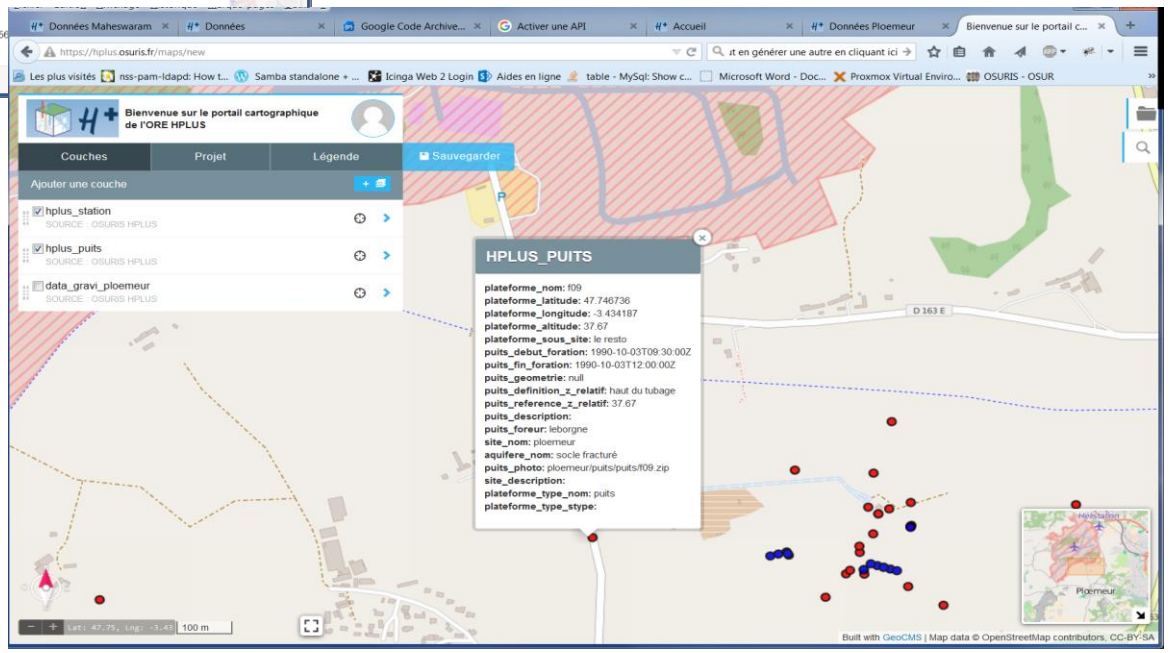
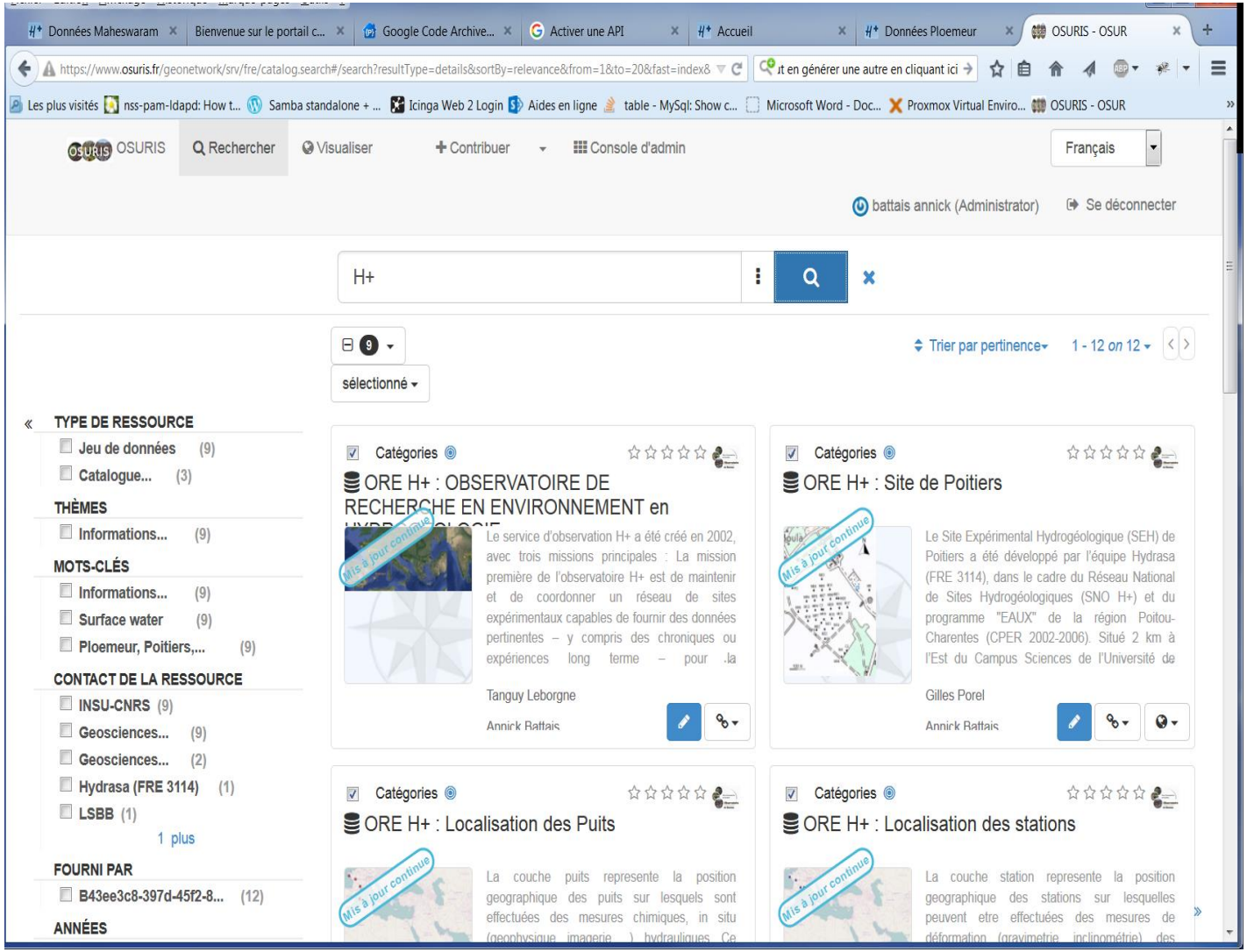


Spatialized data infrastructure
www.osuris.fr/geonetwork

- projects/
- sites/
- Data type



In progress : Integration of geophysical data

- Inventory of the different types geophysical data acquired or considered on the H^+experimental sites
- Classification of the data types
- Reflection on the way to integrate the geophysical data
- First test of integration in the H^+ data base

Database

Thank you for your attention !