Hi Rich,

I tried to go though all the files, but ‘Utah Data Inventory’ has so much content that I can’t finish it completely. Instead, I found that this one contained detailed data and could be done during the implementation of the database. So I focus on other two files and list my understanding and questions as following. Feel free to correct me if I am wrong.

‘ConocoPhillips\_SWD\_Wells\_2021\_0507.xlsx’ has good example data to start. Just to confirm that (a) API and well name are unique for each well; (b) most of the data in this file are 2 Borehole data in ‘CUSP Data workflow and types\_2020\_0810.docx’, right?

For ‘CUSP Data workflow and types\_2020\_0810.docx’

1. Data workflow. For this part, this database system should be able to collect data from Data type inventory list (data from URL in ‘Utah Data Inventory 2021\_0209.docx’?), or from files in a temporary Dropbox/Google Drive location?
2. Data types.
3. Structural Data describes basins with name (unique), extent, models and maps, etc. Its data is from data types in 1.8. Is this data related to each well?
4. Borehole Data describes wells with name and API (unique) and other properties. Sample data is in ‘ConocoPhillips\_SWD\_Wells\_2021\_0507.xlsx’.
5. Petrophysical Data. Its data is from 3.3. Dose it describe petrophysical for each well or anything else?
6. Seismic Data. Dose it describe seismic data for well or a specific location or anything else?
7. CO2 Source Data describes CO2 source Data from top 5-10 CO2 emitters with Name and location (unique) and other properties.
8. CO2 Transport Data describes ROWs for CO2 transport with Operator name and state (unique) and other properties.
9. Spatial Data describes all required maps for this project. Its data is from 7.8.

In summary, there are three types of data from the listed seven:

1 Map data. It contains part of (1) Structural Data and (7) Spatial Data. All other data should be able to be displayed on the map included in the Map data.

2 Well data. It contains (2) Borehole Data, (3) Petrophysical Data and (4) Seismic Data. All detailed data should be related to a specific well. Is this the Storage sector?

3 CO2 data. It contains (5) CO2 Source Data and (6) CO2 Transport Data. Route for CO2 is Source->Transport->Storage. Are these the Source and Transport sectors?

Attached is a simple entity relationship diagram based on my understanding of this project. Feel free to add notes there to make it clear.

Thanks,

Lei