



COLORADO

**Energy & Carbon Management
Commission**

Department of Natural Resources
1120 Lincoln Street, Suite 801
Denver, CO 80203

PRE-APPLICATION MEETING SUMMARY

To: Dan Sanders, Carbon Storage Solutions
From: Ben Frissell, Location Assessment Supervisor
Subject: ECMC Meeting Summary - Carbon Storage Solutions, Front Range 2
Date: December 28, 2023

Attention Dan Sanders,

Thank you for the opportunity to discuss Carbon Storage Solutions' Front Range 2 proposed application. The ECMC has the following comments related to the information presented during the pre-application meeting held December 21, 2023.

Carbon Storage Solutions is proposing one or two stratigraphic (strat) wells which will be used as monitoring wells to support their Front Range 1 location which is working through the EPA's Class VI Program. The proposed location falls outside any HPH layers, is not within 2,000 feet of any RBU and falls outside a Disproportionately Impacted Community. The proposed location does lie within an industrial area with 12 Building Units within 2,000 feet. Additionally, the site falls within the EPA Nonattainment Area, within 200 feet of a railroad track, various irrigation and industrial use wells in the area, and has an unused ditch running through the Working Pad Surface area.

It was suggested that Carbon Storage Solutions explore the following items prior to submitting their application:

- Review safety setbacks related to the railroad track proximity.
- Verify classification of the ditch, if it is a certain age it may be classified by USACE.

- Clarify groundwater, GUDI, drinking water (if any), irrigation wells, industrial wells relevant location and depths.

Since the proposed location will be utilized for a strat well, the applicant will need to follow ECMC's Order No. 1-326 (Docket No. 2300900282) which can also be found [here](#).

Additionally, to help with the Form 2B the following recommendations are presented below. Please note that additional information may be required outside of what is outlined here and this list is subject to change.

- Form Type = OGDG but add a submit tab comment clarifying it is NOT an OGDG and that it is a strat well with no o&g production. Internally, we will need to keep tabs on this doc ID# (and any others like this) so that once the Form2 B gets updated with a checkbox for "Strat well" as an option Ken (or someone) can fix this in the database. If it doesn't get fixed, it will get counted as an OGDG and jack up the data for the annual report.
- The form cannot be submitted without a docket #. Since there will be no docket number for any strat project (at least not under the strat order), let's use 111111111. The next one can be 111111112, then 111111113... I've run this by Chris and he will let Ken/Jen know we are using this number system as a proxy in order to get the form to submit. We will work on updating the business rules for that data field in the future. But at least this way it will be easy to find in the database for the annual report. This series of numbers is not anything that would ever be generated by the hearings unit for real dockets (they use YYMMXXXXX) so we should be good to go with that.
- AIR RESOURCES section - all pre-production data is required and should account for construction, drilling, any completions and/or testing that will occur. Production data can be all zeros.
- PUBLIC HEALTH RESOURCES section - all pre-production data is required and should account for construction, drilling, any completions and/or testing that will occur. Production data can be all zeros.
- OGDG-SCALE DATA section - required
- BENEFICIAL IMPACT section - required; will likely be null values, but want to give applicant's an opportunity to describe any potential future beneficial impact
- MITIGATION INFO section - required

- OPERATOR COMMENTS - require a comment describing that this is not an OGDG but is a strat test well project for potential permitting and conversion to a Class VI well for carbon sequestration. Should generally match the same sort of comment on the 2A.

The above comments are not intended to be a complete list of all issues ECMC Staff may identify as part of the formal OGDG review process, nor should they be construed as an indication of the Director's Recommendation or the final agency action the Commission may take on this or any associated OGDG application.

Sincerely,

Ben Frissell



LOCATION: Front Range 2

DOCUMENT: N/a

Section 23, Township 6 North, Range 67 West

Lat: 40.466418°, Long: -104.859778°

Form 2A Doc No. 111111111

Weld County, Colorado

Background

Carbon Storage Solutions seeks to develop a project that will capture CO₂ emissions and sequester the CO₂. As part of the EPA Class VI application, Carbon Storage Solutions is required to develop a “Monitor Well,” also known as a Stratigraphic Well. Once the EPA authorizes the Operator to inject CO₂, this Stratigraphic Well will be used to monitor temperature, pressure and take downhole fluid samples.

Introduction

On December 28, 2023 Operator attended a Pre-Application Consultation, organized by ECMC. Meeting summary is attached. As part of the discussion, there were three (3) specific requests made of Operator. This document aims to address those three requests.

Table of Contents

- 1. Pre-App Consultation Summary Notes**
- 2. Request #1: Safety setbacks related to railroad track proximity**
- 3. Request #2: Verify classification of ditch**
- 4. Request #3: Clarify groundwater, GUDI, drinking water (if any), irrigation wells, industrial wells relevant location and depths.**



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Ben Frissell

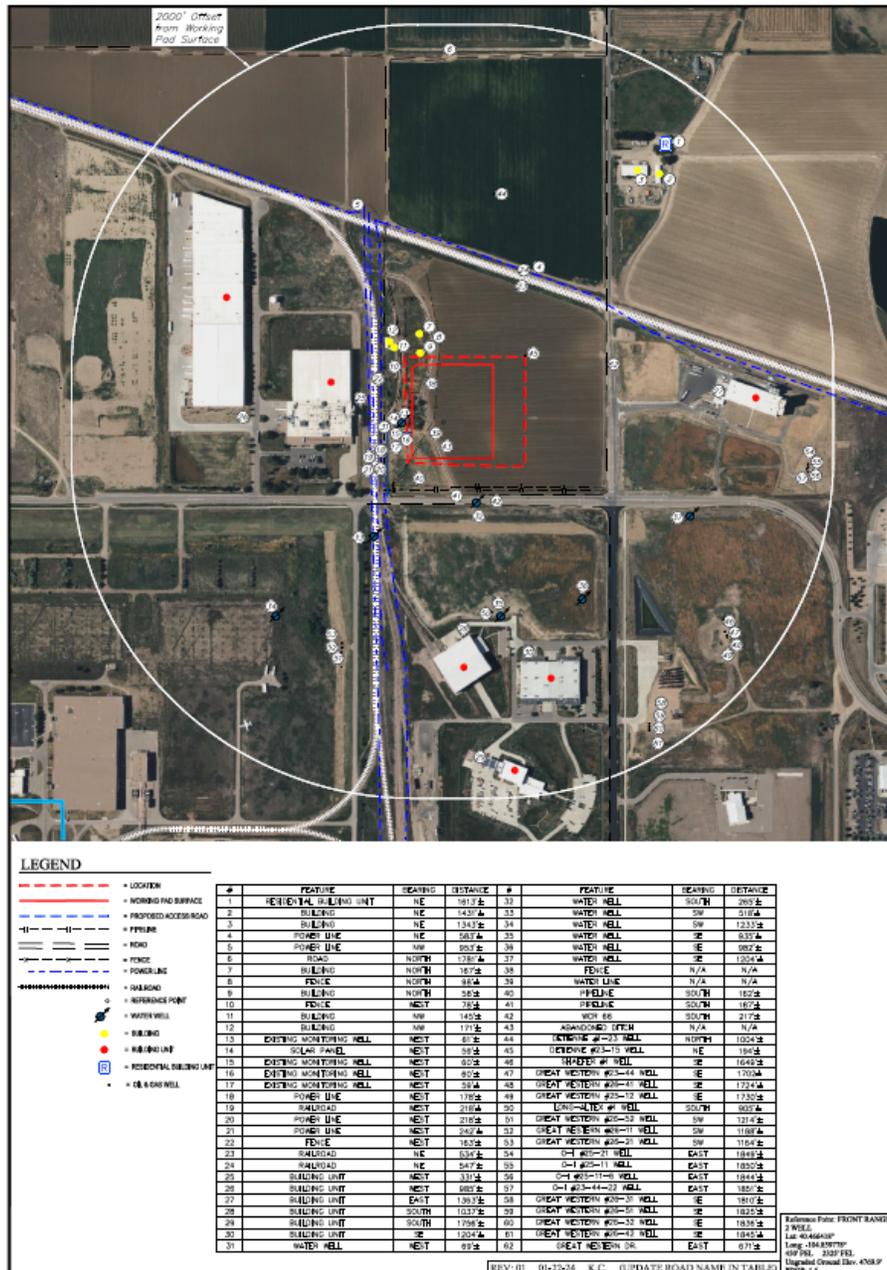
Railroad Tracks Setback and Siting Requirements

There is a Railroad Track 218 feet west of the of our WPS

- The ECMC Pre-App meeting was held on December 21, 2023
- In the ECMC Pre-App Meeting Summary received December 28,2023. It was suggested that Carbon Storage Solutions explore some items prior to submitting the application. One of those items was review safety setbacks related to railroad track proximity.

ECMC Rule 604.a.(1)

Well Location Requirements - At the time the Well is drilled, a Well will be located not less than 200 feet from buildings, public roads, above ground utility lines, or railroads.



- A meeting was set up with OmniTRAX, the owner and operator of the adjacent railroad tracks to discuss our proposed location (WPS). It was determined that OmniTRAX has no concerns or issues with this Operator’s project. Please see the Meeting Minutes below.

MEETING MINUTES	
Carbon Storage Solutions – Front Range 2 Location	
Date:	January 24, 2024
Time:	9:00 AM
Meeting called to order by:	Ben Pittsley with Summit Energy Services

IN

ATTENDANCE

Ben Pittsley, Co-Founder & President, Summit Companies - bp@s-companies.com – 603-219-5011
 Lacy Herbison, Permit Specialist, Summit Companies – lherbsion@s-companies.com – 303-968-6179
 Chris Richter, Director, Growth & Development – crichter@omnitrax.com – 303-398-0528
 Dallas Ramos, GWR General Manager – dramos@omnitrax.com – 970-297-2604
 Jeff Goutcher, SVP, Sales – jgoutcher@omnitrax.com – 214-912-6544

MEETING PURPOSE

Discuss Carbon Storage Solution Front Range 2 Location with OmniTRAX

MEETING MINUTES

Ben Pittsley started the meeting by explaining the project to the group, using the same documents presented to the ECMC during the Pre-Application Consultation Meeting. Carbon Storage Solutions is proposing one stratigraphic well which will be used as a monitoring well to support the Front Range 1 located to the south (EPA Class VI program). The group reviewed a map of the proposed location, access road, and the railroad tracks. We discussed the proposed working pad and the current setback of 218 feet. Ben discussed the Pre-App consultation meeting with the ECMC and reviewed the safety needs.

Chris Richter and Dallas Ramos (OmniTRAX) had no issues with the proposed location and setbacks. Ben pulled up another map showing the access road that runs along the railroad tracks. Dallas stated that was not an issue with the access road because it is not within the 25 - 35 ft setback.

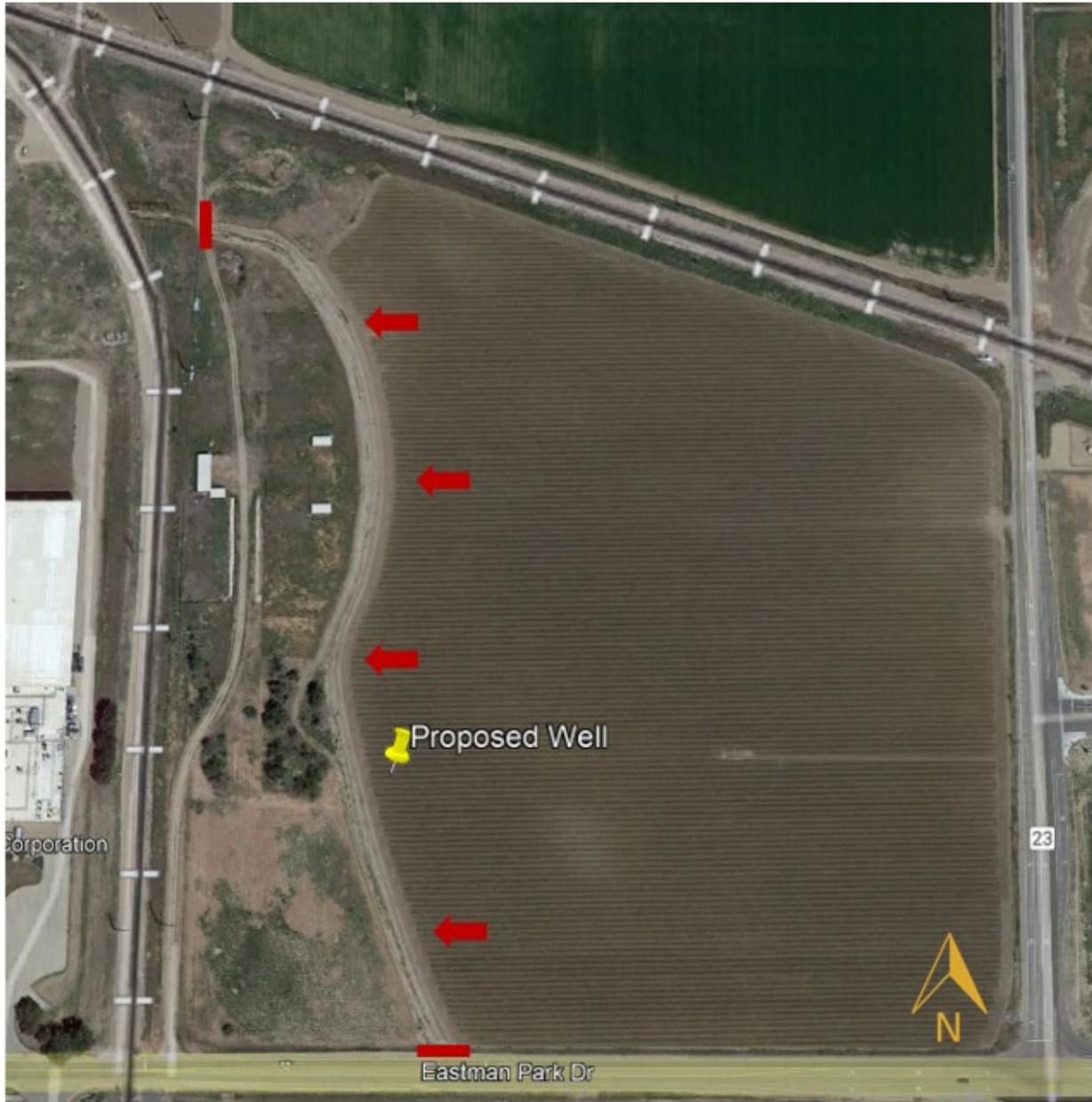
Dallas asked how the well connects to the Front Range 1 well. Ben then explained the details of a stratigraphic and monitor well to the group. We then discussed the project timeline in Q3 2024.

Meeting ended at 9:20 am (meeting minutes taken by Lacy Herbison).

Ditch Classification

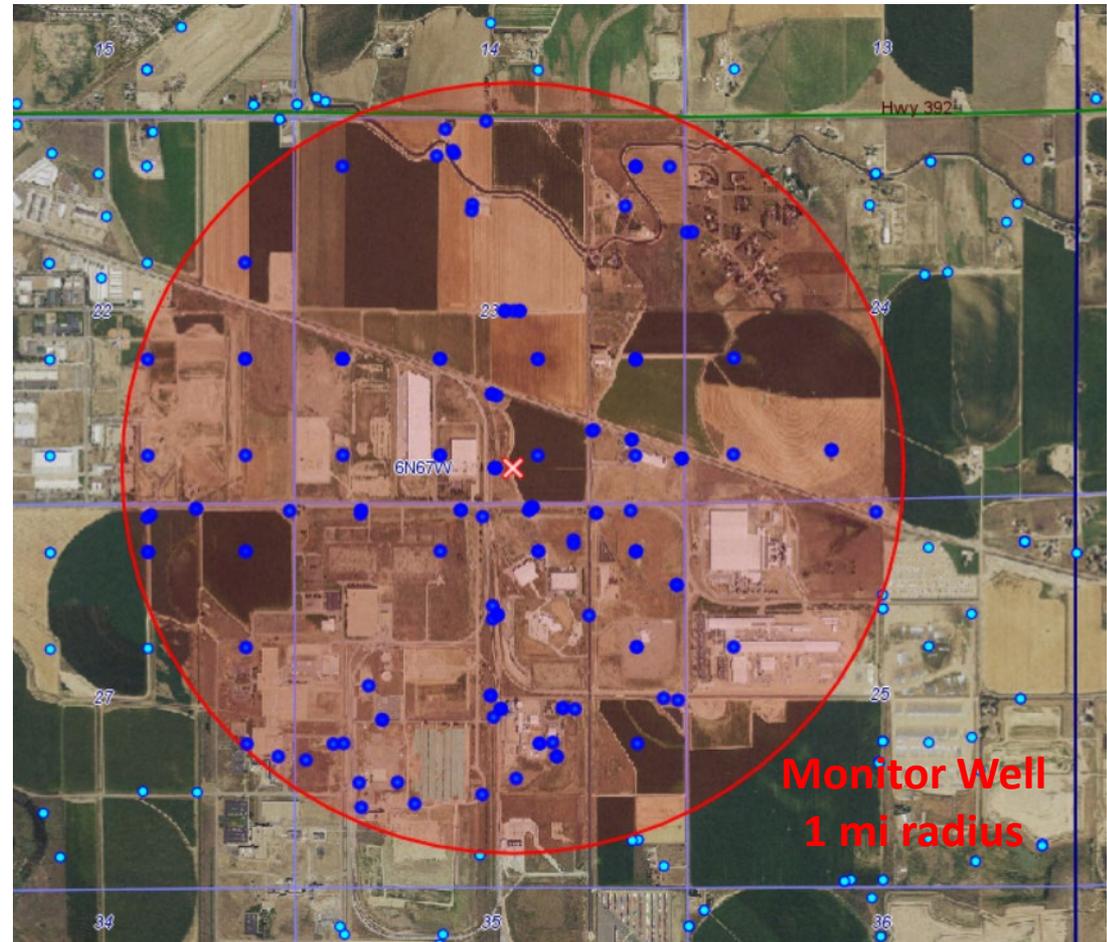
There is a ditch that runs through a portion of the property. The ditch started at the northwest of private property and the ditch dead ends at south of the property at Eastman Park Dr (WCR66). The private ditch does not continue downstream onto other properties. This is a private ditch on the property which the surface owner tends to abandon. In the Surface Use Agreement (SUA) there is a plat dated 10/09/05 surveyed by King Surveyors that shows no ditch in place at the time it was surveyed (See Attachment Map 2).

Location of Ditch (Map 1)



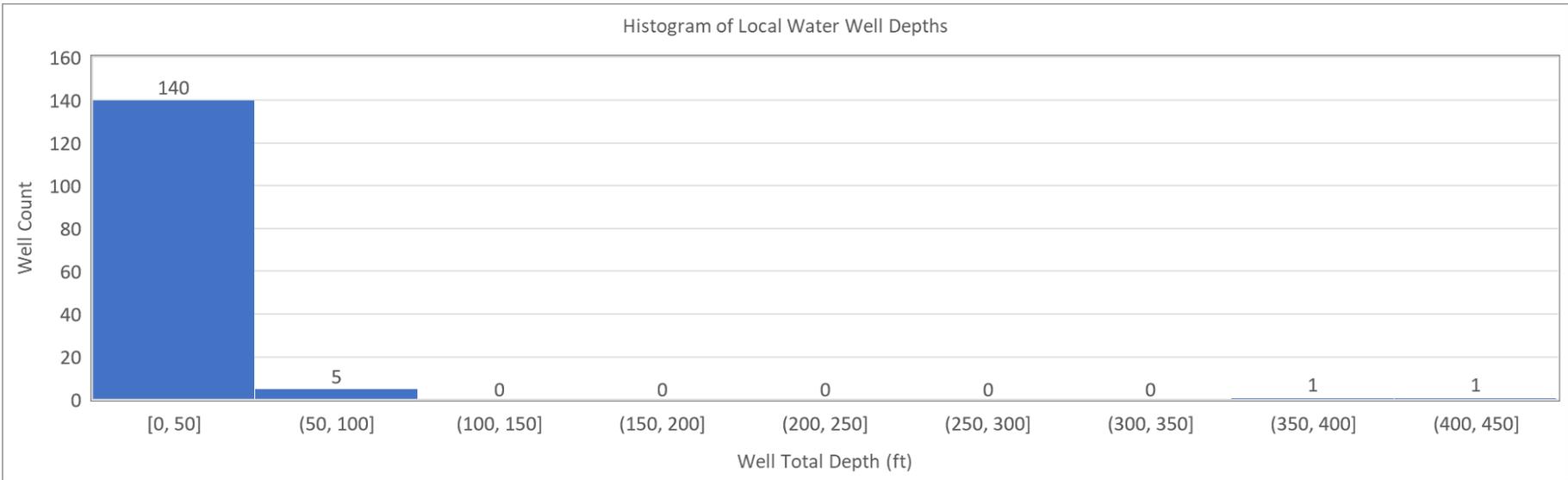
Local Water Wells Research

- Purpose: Clarify groundwater, GUDI, drinking water (if any), irrigation wells, industrial wells relevant location and depths per ECMC request during the Pre-App Consultation.
- Water well records identified per ECMC GIS: Well records within 1 mi of stratigraphic well (Front Range 2-1)
- Deepest local water well identified: 403'
- Water well records classifications:
 - 147 total water wells records
 - 28 Commercial and/or Industrial water wells records
 - 42 Domestic, Stock, Irrigation and/or Household water wells records
 - 70 Monitoring/Sampling water wells records
 - 6 Dewatering wells records
 - 0 Geothermal wells record
 - 1 Other wells or locations records



Local Usable Water Depth Summary

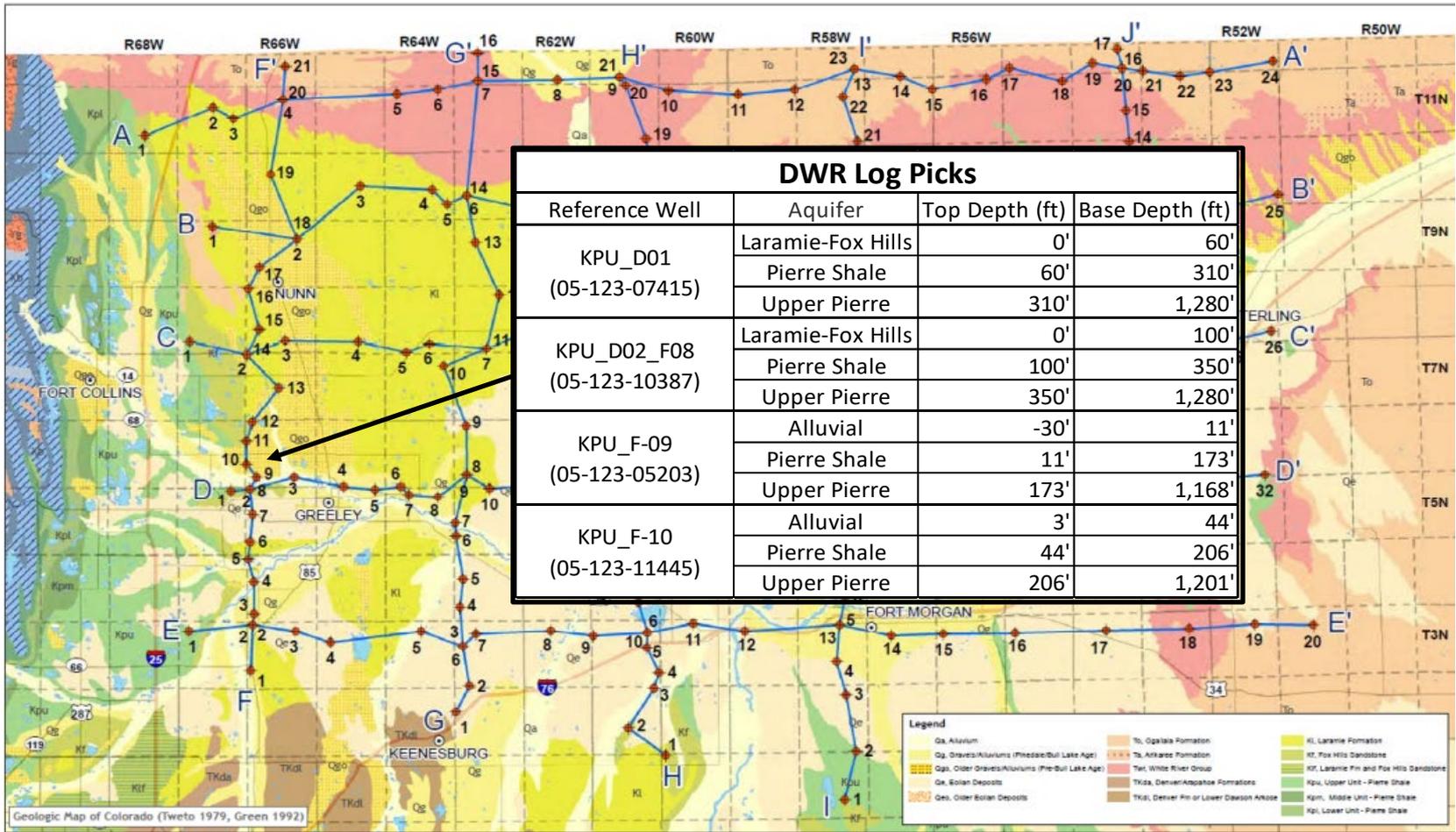
- > 95% of local water wells records are <50' in total depth
- > 97% of local water wells records are <100' in total depth



- 2 wells ~400' total depth: both monitoring / sampling wells

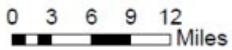
Local Usable Water Summary

- All local water wells (excluding monitoring/sampling wells) are Laramie-Fox Hills or Alluvial
- Surface casing on the Front Range 2-1 will be set at ~2000' TVD, below the base of the Upper Pierre



THE UPPER PIERRE AQUIFER OF THE CHEYENNE BASIN, NORTHEASTERN COLORADO, GEOLOGIC CROSS SECTIONS

Ralf Toppor, Clinton D. Meyer, Marshall Haworth, Kevin C. Donagan, Hillary Banks, Aaron Bandlor, Andrew Flor, and Matthew A. Saros
WRI 2017-1a



References:
Upper Pierre Aquifer Water Quality Study COGCC Project Number 2141