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Sent: Thursday, August 31, 2023 8:27 AM
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Subject: Gasco: HC&C Operational Figures January through June 2023

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Wes,

Below please find the link to the HC&C Operational Figures from January through June 2023. The Figure set consists of 170 figures, organized as follows:

Figure 1.1 – Vicinity Map (1 Figure)

Figure 2.1 to 2.4 – Well location figures - Fill, Upper Alluvium, Lower Alluvium, and Deep Lower Alluvium WBZs (4 Figures)

Figures 3.1a to 3.12c – Contours of water elevation differences between wells and the river (2 per month per WBZ – 36 Figures)

Figures 4.1 to 4.66 – Plots of water elevation differences between wells and the river (1 per well with transducer – 66 Figures)

Figures 5.1 to 5.21 – Plots of water elevation differences between select well pairs (21 well pair Figures)

Figures 6.1 to 6.2 – Contours of water elevation differences between upper and lower alluvium wells (2 per month - 12 Figures)

Figures 7.1 to 7.30 – Plots of pumping rates for the individual extraction wells and total pumping rates (1 per extraction well plus totals – 30 Figures)

Below is a list of significant events within the 6-month timeframe. These events are apparent in many figures but are not annotated in each figure.

- Chemical treatments of extraction well screens and piping (January through June)
- Semiannual groundwater monitoring event (March 8 through April 19)
- Transducer O&M and replacements (January through June)
- PW-10U was offline since November 2022; replaced with PW-10Ub which was brought online in June 2023
- PW-10Lc was brought online in June 2023; replacing PW-10Lb
- River level above top of several shoreline/offshore piezometers in May

The figure 6 series show vertical gradients between the Upper and Lower Alluvium WBZs. Figures are prepared twice a month over the 6-month reporting period and 3 of the 12 figures (Figures 6.4, 6.11, and 6.12) show that upwards vertical gradients were not continuously maintained in the area between PW-6U and PW-14U. As shown in Figure 7.7, extraction well PW-6U has been losing specific capacity and unable to maintain pumping rates more than 1 to 2 gpm. Well screen maintenance has been successful in improving pumping rates to approximately 2.5 gpm but we are recommending replacement of extraction well PW-6U to maintain consistent upward vertical gradients in this area. A proposed well design for extraction well PW-6Ub will follow.

Instructions to access the FTP site:

To access the FTP site automatically using Windows Explorer please follow the steps below.

- From Windows XP desktop select Start -> Run or for Windows 7 select Start -> and click in the search box
- Copy/Paste the following line into the "Open" box for XP or the "Search" box for Windows 7 and hit "enter"

REDACTED

- You should now be logged into the site using Windows Explorer. You can use copy/paste to move files to or from the site

To access the FTP site manually using a FTP browser like [CoreFTP](#) or Windows Explorer please use the info below.

- Site URL: **REDACTED**
- Username: **REDACTED**
- Password:

To access the FTP site via web browser please follow the steps below.

- Click on the following link: **REDACTED**
- Input the username and password that are listed in the above section
- Use the tools available directly to the site to download or upload

Please contact John Renda with any questions.

Jen Mott 😊

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