## Final Well Design FW-02B (10/25/22)



Well ID: Well Type: Dual Screened FW-02B Well Purpose: Remediation Borehole Dia.: 22 - 24 in. Well Diameters: 12 in. Backfill Volumes 0 ft Units Quantity 2 ft. Material Temp Backfill Sand 9.0 Bags \*May be modified in the field 15 ft. 1009.6 Neat Cement Gallons Depth of Conductor Casing 62.22 ft. Well Construction Materials For upper screen 95-112 ft: 12" Suregrip SDR-17 Casing 55 ft. 12" 35-slot 316L SS Wire Wrap Screen Transition Sand For lower screen 135-166 ft: 93.2 Bags 12" Suregrip SDR-17 Casing Red Flint 0.20-0.30 12" 15-slot 316L SS Wire Wrap Screen Cemex #60 Lapis Lustre if needed 85 ft. For upper primary filter pack 93-114 ft: 89 ft. Red Flint 0.80-1.20 Sand 90 ft. **Bentonite Chips** For upper transition sands 37-40 ft: 2.4 Bags Red Flint 0.20-0.30 Sand 92.5 ft. Approximate DTW 95 ft. 97-102 feet For lower primary filter pack 127-172 ft: Results: <0.025 Red Flint 0.35-0.45 Sand For lower transition sands 114-121 ft: Red Flint 0.20-0.30 Sand 83.5 Sand Pack bags 107-112 feet Results: <0.025 112 ft. 114 ft. 117 ft. 22.6 Transition Sand Bags 117-122 feet Results: 7.8 ug/L 120.5 ft. 121 ft. 1.4 **Bentonite Pellets** Buckets 122 ft. \* Not to Scale Legend Sand Pack 41.8 Transition Sand bags Primary Fitler Sand Red 0.35-0.45 Bentonite Pellets or Chips 133-121 ft bgs Neat Cement up to 6% Bentonite Centralizers Suregrip SDR-17 casing 127-132 feet 316L SS Wire Wrap Screen Results: 36 ug/L Stainless Steel End Cap 132 ft 133 ft. 134.5 ft. 137 ft. 137.5 ft. Back Fill Sand 28.8 bags Cemex #1/20 Total Depth of 22-Inch Diameter 133-140 ft bgs 140 ft. Pilot Borehole Total Depth 142 ft.



| 9             | ARC                    | ADIS                 |              |               | Well Const                        | ruction Log                   | S                              | Sheet: 2 of 8   |
|---------------|------------------------|----------------------|--------------|---------------|-----------------------------------|-------------------------------|--------------------------------|---|
| Date S        | Started:               | 10/23/2022           |              |               | _Surface Elevation:               | 551.67 ft amsl                |                                | /_02B   |
| Date 0        | Completed:             | 11/05/2022           |              |               | _Shallow Well Elevation:          | N/A                           |                                | v-v2D   |
| Drilling      | , Co.:                 | Cascade              |              |               | Deep Well Elevation:              | N/A                           | Client: PG&E                   |   |
| Drilling      | Method:                | Dual Rotary          |              |               | Northing (NAD83):                 | 2100637.96                    | Project: Final                 | GW Remedy Phase 2A  |
| Driller       | ,<br>Name:             | Josh Saldana         | a            |               | Easting (NAD83):                  | 7614544.74                    | Location: PG&E                 | Topock. Needles California  |
| Drilling      | Asst:                  | L.G. / A.A. / [      | D.A.         |               | Borehole Diameter:                | 22-24 inches                  |                                |   |
|               | er:                    | Fllen Redner         |              |               | Static Water Level:               | See Log for Depths            | Project Number                 | r: 30126255   |
| Editor        |                        | Sean McGra           | ne           |               | Development End Date:             | 11/19/2022                    |                                |   |
| Total [       | Denth:                 | 142 06 ft bas        |              |               | Well Completion                   | Flush Stick-up X              | —<br>To Be Completed           | in Well Vault   |
| i otai i      |                        |                      | ,            |               | _ troir completion.               |                               |                                |   |
| Depth<br>(ft) | Groundwat<br>Sample II | Geologic<br>Formatio | USCS<br>Code | USCS<br>Class |                                   |                               | Calculated<br>Material Volumes | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |
|               |                        |                      |              |               | (0.0 - 95.0')                     |                               |                                |   |
| 21            |                        |                      |              |               | SDR17 PVC Casing                  |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               | 1                      |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
| <u> </u>      |                        |                      |              |               |                                   |                               |                                |   |
| 24            |                        | Fluvial              | SW           |               |                                   |                               |                                |   |
|               |                        | Deposits             | 500          | 2             |                                   |                               |                                |   |
| 25            |                        |                      |              |               |                                   |                               |                                |   |
|               | -                      |                      |              |               |                                   |                               |                                |   |
| 26            | -                      |                      |              |               |                                   |                               |                                |   |
|               | -                      |                      |              |               |                                   |                               |                                |   |
| 27            |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              | 8. 3.         |                                   |                               |                                |   |
| 28            |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
| 20            |                        |                      |              | 0             |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               | No                     | Fluvial              | SW           |               |                                   |                               |                                |   |
| <u> </u>      | Samples                | Deposits             |              |               | (20.7 - 61.7')<br>Portland Cement |                               | (20.7 - 61.7')                 | (20.7 - 61.7') 660 gallons (96%)  |
|               | Collected              |                      |              |               | Type I, II and IV with            |                               | 687.3 gallons                  | Note: Grout seal first lift   |
| 31            | -                      |                      | •            |               | up to 6% Quik-Gel.                |                               |                                |   |
| <u> </u>      |                        |                      |              | 8.1           |                                   |                               |                                |   |
| 32            |                        |                      |              |               |                                   |                               |                                |   |
|               | -                      |                      |              |               |                                   |                               |                                |   |
| 33            | -                      |                      |              |               |                                   |                               |                                |   |
|               | -                      |                      |              |               |                                   |                               |                                |   |
| 34            | -                      | Alluvium             | SW           | Par N         |                                   |                               |                                |   |
|               |                        | Deposits             |              |               |                                   |                               |                                |   |
| 35            |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
| 36            |                        |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               | 1                      |                      |              |               |                                   |                               |                                |   |
|               |                        |                      |              |               |                                   |                               |                                |   |
|               | -                      |                      |              |               |                                   |                               |                                |   |
| 38            | -                      | Alluvium             | SW-SM        |               |                                   |                               |                                |   |
|               |                        | Deposits             | 000-010      |               |                                   |                               |                                |   |
| 39            |                        |                      |              |               |                                   |                               |                                |   |
| <u> </u>      |                        | Allunduren           |              |               |                                   |                               |                                |   |
| 40            |                        |                      | SW           |               |                                   |                               |                                |   |
| Abbre         | viations: U            | SCS = Unifie         | d Soil C     | assifica      | ion System, ft = feet, bgs        | = below ground surface, an    | nsl = above mean               | sea level, SS = Stainless   |
| Steal,        | NR = No F              | ecovery, N/A         | = Not A      | pplicab       | e, GW = groundwater, pp           | b = parts per billion, Notes: | Solid blue water ta            | able marks represent depth to   |
| water         | (ft. bgs.) m           | easured post         | develop      | ment.         |                                   |                               |                                |   |
| Ď             |                        |                      |              |               |                                   |                               |                                |   |

| 9             | ARC                    | ADIS                 |              |               | Well Const                     | ruction Log                   | S                              | Sheet: 3 of 8   |
|---------------|------------------------|----------------------|--------------|---------------|--------------------------------|-------------------------------|--------------------------------|---|
| Date S        | Started:               | 10/23/2022           |              |               | _Surface Elevation:            | 551.67 ft amsl                |                                | 1-02B   |
| Date C        | Completed:             | 11/05/2022           |              |               | _Shallow Well Elevation:       | N/A                           |                                | 1-V2D   |
| Drilling      | , Co.:                 | Cascade              |              |               | _Deep Well Elevation:          | N/A                           | <br>Client: <u>PG&amp;E</u>    |   |
| Drilling      | Method:                | Dual Rotary          |              |               | Northing (NAD83):              | 2100637.96                    | Project: Final (               | GW Remedy Phase 2A  |
| Driller       | ,<br>Name:             | Josh Saldan          | а            |               | Easting (NAD83):               | 7614544.74                    | Location: PG&E                 | Topock. Needles California  |
| Drilling      | Asst:                  | L.G. / A.A. /        | D.A.         |               | Borehole Diameter:             | 22-24 inches                  |                                |   |
|               | r:                     | Fllen Redne          | r            |               | Static Water Level:            | See Log for Depths            | Project Number                 | : 30126255  |
| Editor        |                        | Sean McGra           | ne           |               | Development End Date:          | 11/19/2022                    |                                |   |
| Total [       | Depth:                 | 142.06 ft bg:        | 8            |               | Well Completion:               | Flush Stick-up X              | —<br>To Be Completed           | in Well Vault   |
|               |                        | 0 5                  |              |               | <br>Construe                   | ction Details                 |                                |   |
| Depth<br>(ft) | Groundwat<br>Sample II | Formatic<br>Formatic | USCS<br>Code | USCS<br>Class |                                |                               | Calculated<br>Material Volumes | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |
|               |                        | Deposits             |              |               | (0.0 - 95.0')<br>12" SHUR-GRIP |                               |                                |   |
| 41            |                        |                      |              |               | SDR17 PVC Casing               |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 42            |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 43_           |                        | Alluvium             | SW           |               |                                |                               |                                |   |
|               |                        | Deposits             |              |               |                                |                               |                                |   |
| 44            |                        |                      |              | N.Q.          |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 45            |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 46            |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 47            |                        | Alluvium             | SW SM        |               |                                |                               |                                |   |
|               |                        | Deposits             | 300-300      |               |                                |                               |                                |   |
| 18            |                        |                      |              |               |                                |                               |                                |   |
|               |                        | Alluvium             | SW-SM        |               |                                |                               |                                |   |
| <u> </u>      |                        |                      |              |               |                                |                               |                                |   |
| 49            |                        |                      |              |               |                                |                               |                                |   |
|               | No                     | Alluvium             | SW-SM        |               | (20.7 - 61.7')                 |                               | (00.7.01.7)                    | (00.7.04.7)) 000 - 11 - (00%)   |
| 50            | Samples                | Deposits             |              |               | Type I, II and IV with         |                               | (20.7 - 61.7)<br>687.3 gallons | Note: Grout seal first lift   |
| — —           | Collected              |                      |              |               | up to 6% Quik-Gel.             |                               |                                |   |
| 51            |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 52            |                        |                      |              |               |                                |                               |                                |   |
| — —           |                        |                      |              |               |                                |                               |                                |   |
| 53            |                        |                      |              | N. O.         |                                |                               |                                |   |
|               |                        | All                  |              |               |                                |                               |                                |   |
| 54            |                        | Deposits             | SW           |               | (53.5 - 54.5')                 |                               |                                |   |
|               |                        |                      |              |               | Kwik-Zip Centralizer           |                               |                                |   |
| 55            |                        |                      |              |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 56            | 1                      |                      |              |               |                                |                               |                                |   |
|               | 1                      |                      |              | L. O.         |                                |                               |                                |   |
|               |                        |                      |              | Poin          |                                |                               |                                |   |
| 57            |                        | Alluvium             | SW           |               |                                |                               |                                |   |
|               |                        | Deposits             |              |               |                                |                               |                                |   |
| 58            |                        |                      |              |               |                                |                               |                                |   |
|               |                        | Alluvium             | 0.00         |               |                                |                               |                                |   |
| 59            |                        | Deposits             | SW-SM        |               |                                |                               |                                |   |
|               |                        |                      |              |               |                                |                               |                                |   |
| 60            |                        |                      |              |               |                                |                               |                                |   |
| Abbre         | viations: U            | SCS = Unifie         | d Soil Cl    | assificat     | ion System, ft = feet, bgs     | = below ground surface, an    | nsl = above mean s             | sea level, SS = Stainless   |
| Steal,        | NR = No F              | ecovery, N/A         | = Not A      | pplicabl      | e, GW = groundwater, pp        | b = parts per billion, Notes: | Solid blue water ta            | ble marks represent depth to  |
| water         | (ft. bgs.) m           | easured post         | develop      | ment.         |                                |                               |                                |   |
| 5             |                        |                      |              |               |                                |                               |                                |   |

| 9                 | ARC                    | AD      | IS                   |               |                   | Well Const  | ruction Log                   | S                               | Sheet: 4 of 8   |  |  |
|-------------------|------------------------|---------|----------------------|---------------|-------------------|---|-------------------------------|---------------------------------|---|--|--|
| Date S            | Started:               | 10/23/  | 2022                 |               |                   | _Surface Elevation:   | 551.67 ft amsl                |                                 | 1028  |  |  |
| Date C            | Completed:             | 11/05/  | 2022                 |               |                   | Shallow Well Elevation:   | N/A                           |                                 | 1-V2D   |  |  |
| Drillinc          | , Co.:                 | Casca   | de                   |               |                   | Deep Well Elevation:  | N/A                           | <br>Client: PG&E                |   |  |  |
| Drilling          | ,<br>Method:           | Dual R  | Rotarv               |               |                   | Northing (NAD83):   | 2100637.96                    | Project: Final (                | GW Remedy Phase 2A  |  |  |
| Driller           | Name <sup>.</sup>      | Josh S  | Saldana              |               |                   | Easting (NAD83)   | 7614544 74                    | Location: PG&F                  | Topock Needles California   |  |  |
| Drilling          | i Asst                 |         | AA/D                 | Α             |                   | Borehole Diameter   | 22-24 inches                  |                                 |   |  |  |
|                   | r.                     | Fllen F | Redner               | <i>u</i> u    |                   | Static Water Level  | See Log for Depths            | Project Number                  | <sup></sup> 30126255  |  |  |
| Editor            |                        | Sean I  | McGran               | e             |                   | Development End Date:   | 11/19/2022                    |                                 |   |  |  |
| Total [           | Depth:                 | 142.06  | ft bas               | •             |                   | Well Completion   | Flush Stick-up X              | —<br>To Be Completed            | in Well Vault   |  |  |
| i otai i          |                        | 112.00  |                      |               |                   | _ troir compretent.   |                               | Material Volumes Installed      |   |  |  |
| Depth<br>(ft)     | Groundwat<br>Sample II | er<br>) | Geologic<br>Formatio | USCS<br>Code  | USCS<br>Class     | Condita   |                               | Calculated<br>Material Volumes  | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |  |  |
| 61<br>61<br>62    |                        | AI      | lluvium<br>eposits   | SW-SM         |                   | (0.0 - 95.0')<br>12" SHUR-GRIP<br>SDR17 PVC Casing<br>(20.7 - 61.7')<br>Portland Cement<br>Type I, II and IV with<br>up to 6% Quik-Gel. | (62 2 - 142 1') 22"           | (20.7 - 61.7')<br>687.3 gallons | (20.7 - 61.7') 660 gallons (96%)<br>Note: Grout seal first lift                                   |  |  |
|                   |                        |         |                      |               |                   | \$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$  | Diameter Borehole             |                                 |   |  |  |
| <u> </u>          |                        |         |                      |               |                   | (61.7 - 64.6')<br>Cemex #60 (40x70)   |                               | (61.7 - 64.6')<br>10.1 bags     | (61.7 - 64.6') 10 bags (99%)<br>Note: Transition sand   |  |  |
| 5 – –             |                        | AI      | luvium               | SW            |                   | Lapis Lustre Sand   |                               |                                 |   |  |  |
| 04                |                        |         | eposits              |               |                   |   |                               |                                 |   |  |  |
| 65                |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| CO                |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               | $  \setminus /  $ |   |                               |                                 |   |  |  |
| 5 <u> </u>        |                        |         |                      | NR            | XI                |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| с <u></u> 6/      |                        |         | lunium               |               |                   |   |                               |                                 |   |  |  |
|                   |                        |         | eposits              | SW            |                   |   |                               |                                 |   |  |  |
| ≝68<br>≋          |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| <u> </u>          |                        |         | •                    |               |                   |   |                               |                                 |   |  |  |
| 69                |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
|                   | No                     |         | eposits              | SW            |                   |   |                               |                                 |   |  |  |
| 70                | Groundwate<br>Samples  | r       |                      |               |                   |   |                               |                                 |   |  |  |
|                   | Collected              |         |                      |               |                   |   | 0 ° 0 ° 0 °                   |                                 |   |  |  |
| <u> </u>          |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| 72                |                        |         |                      |               |                   | (64.6 - 89.0')  | ૾૾૾૾૾૾૾૾                      | (64.6 - 89.0')                  | (64.6 - 89.0') 88 bags (104%)   |  |  |
|                   |                        | AI      | luvium               | SM            |                   | Red Flint Sand  | 6 0 0 0 0<br>0 0 0 0 0        | 84.9 bags                       | Note: Tranisiton sand   |  |  |
| g73               |                        | De      | eposits              | SIVI          |                   |   |                               |                                 |   |  |  |
| <u> </u>          |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| 74                |                        |         |                      |               |                   | 0,0,0,0   | ૾ૢ૾ૡ૾૾ૡ૾૿ૡ                    |                                 |   |  |  |
| — —               |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| 75                |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| <sup>g</sup> _76_ |                        |         | luvium               | SW            |                   |   | 0000<br>0000<br>0000          |                                 |   |  |  |
|                   |                        |         |                      |               |                   | <br> <br>   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| 78                |                        |         |                      |               |                   | \$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$<br>\$                          |                               |                                 |   |  |  |
|                   |                        |         | luvium               | 0.44 65 5     |                   | <br> <br>   |                               |                                 |   |  |  |
| 79                |                        |         | eposits              | SW-SM         |                   |   |                               |                                 |   |  |  |
|                   |                        |         |                      |               |                   |   |                               |                                 |   |  |  |
| 80                |                        |         |                      | <b>•</b> •• - |                   | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\  | <u> </u>                      | <u> </u>                        |   |  |  |
| Abbre             | viations: U            | SCS =   | Unified              | Soil Cl       | assificat         | ion System, ft = feet, bgs  | = below ground surface, an    | nsl = above mean s              | sea level, SS = Stainless   |  |  |
| Steal,            | NK = NOF               | ecover  | y, N/A =             | = Not A       | pplicabl          | e, Gvv = groundwater, pp  | b = parts per billion, Notes: | Solid blue water ta             | ible marks represent depth to   |  |  |
| water             | (ii. bgs.) m           | easure  | u post d             | evelop        | nent.             |   |                               |                                 |   |  |  |
| 2                 |                        |         |                      |               |                   |   |                               |                                 |   |  |  |



| 9                  | ARC                                  | ADIS                   |              |                 | Well Const   | ruction Log                          | S                              | Sheet: 6 of 8   |
|--------------------|--------------------------------------|------------------------|--------------|-----------------|--|--------------------------------------|--------------------------------|---|
| Date S             | Started:                             | 10/23/2022             |              |                 | _Surface Elevation:  | 551.67 ft amsl                       |                                | 1_02B   |
| Date C             | Completed:                           | 11/05/2022             |              |                 |  | N/A                                  |                                | V-V2D   |
| Drilling           | Co.:                                 | Cascade                |              |                 | _Deep Well Elevation:                                      | N/A                                  | Client: <u>PG&amp;E</u>        | <u> </u>  |
| Drilling           | Method:                              | Dual Rotary            |              |                 | _Northing (NAD83):   | <u>2100637.96</u>                    | Project: <u>Final</u>          | GW Remedy Phase 2A  |
| Driller            | Name:                                | Josh Saldana           | a            |                 | _Easting (NAD83):  | <u>7614544.74</u>                    | Location: <u>PG&amp;E</u>      | Topock, Needles California  |
| Drilling           | Asst:                                | <u>L.G. / A.A. / [</u> | D.A.         |                 | _Borehole Diameter:  | 22-24 inches                         |                                |   |
| Logge              | r:                                   | Ellen Redner           |              |                 | _Static Water Level:                                       | See Log for Depths                   | Project Number                 | r: <u>30126255</u>  |
| Editor:            |                                      | Sean McGrai            | ne           |                 | _Development End Date                                      | : <u>11/19/2022</u>                  |                                |   |
| Total [            | Depth:                               | 142.06 ft bgs          |              |                 | _Well Completion:  |                                      | To Be Completed                | in Well Vault   |
| Depth<br>(ft)      | Groundwat<br>Sample II               | Geologic               | USCS<br>Code | USCS<br>Class   | Consul   |                                      | Calculated<br>Material Volumes | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |
|                    |                                      | Alluvium<br>Deposits   | sw           |                 | (95.0 - 112.0')<br>12" 35-Slot 316L SS<br>Wire Wrap Screen |                                      | 2                              |   |
| ٥<br>              |                                      |                        |              |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
| <u> </u>           |                                      |                        |              |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
| <sup>9</sup> _106_ |                                      | Alluvium<br>Deposits   | SW           |                 |  |                                      |                                | (90.0 - 113.4') 97 bags (119%)  |
|                    |                                      |                        |              |                 | (90.0 - 113.4')  |                                      | (90.0 - 113.4')                | Note: Filter pack, swabbed the<br>filter pack for approximately 100                               |
| ື107<br>ສ          |                                      |                        |              |                 | 0.80-1.20 MM   |                                      | 81.4 bags                      | minutes prior to installation of the  |
|                    |                                      |                        |              |                 |  |                                      |                                | bentonne sear.  |
| ≝108<br>≋          |                                      |                        |              |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
| 109                | FW-02B-<br>VAS-107-11                | 2                      |              |                 |  |                                      |                                |   |
|                    | (<0.025 ppb<br>8/24/2022             | Alluvium               |              |                 |  |                                      |                                |   |
| ≩110<br>≝          | 09:15                                | Deposits               | SW-SM        |                 |  |                                      |                                |   |
| ≤                  |                                      |                        |              |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
| ±                  |                                      |                        |              |                 |  |                                      |                                |   |
| ž 1 12             |                                      |                        |              |                 |  |                                      |                                |   |
| □<br>              |                                      |                        |              |                 |  | SDR17 PVC Casing                     |                                |   |
|                    |                                      | Alluvium               | SM           |                 |  |                                      |                                |   |
| z<br>114           |                                      | Deposits               | Sivi         |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 |  |                                      |                                |   |
| ⊈115               |                                      |                        |              |                 |  | ର୍ବ<br>ରୋଜରେ ବ<br>ରାଜରେ ବ            |                                |   |
|                    |                                      |                        |              |                 |  | × 600                                |                                |   |
| 4116               |                                      |                        |              |                 | (115.5 - 116.5')   |                                      |                                | (113.4 - 120.3') 36 bags (150%)<br>Note: Transition sand, used >20%                               |
|                    |                                      |                        |              |                 | Kwik-Zip Centralizer                                       |                                      | (113 4 - 120 3')               | of the calculated volume due to<br>potential voids that formed during                             |
| <u></u>            |                                      | Alluvium               | SW           |                 | Red Flint Sand   | <u>ଁ</u>   ତିର୍ଦ୍ଦିଶ<br>ତା ତିର୍ଦ୍ଦିଶ | 24 bags                        | drilling or the finer grained   |
| CERAN              |                                      | Deposits               |              |                 | 0.20-0.00 WIWI   |                                      |                                | the upper screen during   |
| <u></u> 118        | FW-02B-                              |                        |              |                 |  | ଁରା ନିର୍ଦ୍ଦି<br>ରା ନିର୍ଦ୍ଦିଶ         |                                | installation.   |
|                    | VAS-117-12<br>(7.8 ppb)              | 2                      |              |                 |  | <u>ଁ ଚୈଚ୍ଚି</u>                      |                                |   |
|                    | 8/30/2022<br>11:14                   |                        |              |                 |  |                                      |                                |   |
|                    |                                      | Alluvium               | SW-SM        |                 |  |                                      |                                |   |
|                    |                                      |                        |              |                 | i vite fin             |                                      |                                |   |
|                    | viations: U                          | SCS = Unified          |              | assitica        | tion System, tt = feet, bgs                                | s = below ground surface, ar         | nsi = above mean               | sea level, SS = Stainless   |
|                    | $\frac{NR}{(ft_bas)} = \frac{NO}{T}$ | ecovery, N/A           |              | pplicab<br>ment | ie, Gvv = groundwater, p                                   | $\mu\nu$ = parts per billion, Notes: | Solid Diue Water ta            | able marks represent depth to   |
| water              | (ir. ngs.) m                         | easureu post           | uevelop      | ment.           |  |                                      |                                |   |
| _<br>              |                                      |                        |              |                 |  |                                      |                                |   |

| 9                   | ARC                    | Δ       | DIS                       |              |   | Well Cor   | str      | uct                 | ion Log   | ę                               | Sheet: 7 of 8  |
|---------------------|------------------------|---------|---------------------------|--------------|---|--|----------|---------------------|---|---------------------------------|--|
| Date S              | Started:               | 10      | /23/2022                  |              |   | Surface Elevation:   |          | 551.6               | 7 ft amsl   |                                 | N 00B  |
| Date C              | Completed:             | 11      | /05/2022                  |              |   | Shallow Well Flevat  | ion:     | <u>00110</u><br>N/A |   | - well ID: FV                   | V-02B  |
| Drilling            | I Co.:                 | Са      | scade                     |              |   | Deep Well Elevation  | ו:       | N/A                 |   | <br>Client: PG&B                | Ξ  |
| Drilling            | Method:                | Du      | al Rotary                 |              |   | Northing (NAD83):  |          | 2100                | 637.96  | Project: Final                  | GW Remedy Phase 2A   |
| Driller             | Name <sup>.</sup>      | .10     | sh Saldana                |              |   | Easting (NAD83)  |          | 7614                | 544 74  | Location: PG&F                  | E Topock Needles California  |
| Drilling            | Asst <sup>.</sup>      | 1 (     | G / A A / D               | Α            |   | Borehole Diameter  |          | 22-24               | inches  |                                 |  |
|                     | r.                     | FI      | en Redner                 |              |   | Static Water Level   |          | See I               | og for Depths   | Project Numbe                   | r: 30126255  |
| Editor              |                        | Se      | an McGran                 | e            |   | Development End [  | )ate:    | 11/19               | /2022   |                                 |  |
| Total               | )<br>Denth:            | 14      | 2 06 ft bas               |              |   | Well Completion:   | Julo.    |                     | lush Stick-up X                                       | <br>To Be Completed             | in Well Vault  |
|                     |                        |         |                           |              |   | <br>Cc   | nstruc   | tion De             |   |                                 |  |
| Depth<br>(ft)       | Groundwat<br>Sample ID | er<br>) | Geologi<br>Formatio       | USCS<br>Code | USCS<br>Class   |  |          |                     |   | Calculated<br>Material Volumes  | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume  |
|                     |                        |         | Alluvium<br>Deposits      | SW-SM        |   | (120.3 - 120.9')<br>Pel-Plug Bentonite <sup>—</sup><br>Pellets 3/8" (TR30) |          |                     | (112.0 - 122.0')<br>12" SHUR-GRIP<br>SDR17 PVC Casing | (120.3 - 120.9')<br>1.5 buckets | (120.3 - 120.9') 2 buckets (133%)<br>Note: Bentonite seal, used >20%<br>of the calculated volume due to<br>potential voids that formed during<br>drilling. |
| 2 122               |                        |         |                           |              |   |  |          | <u> </u>            | (122.0 - 132.0')                                      |                                 |  |
|                     |                        |         |                           |              |   |  |          |                     | 12" 15-Slot 316L SS<br>Wire Wran Screen               |                                 |  |
| z123                |                        |         | Alluvium                  | SM           |   |  |          |                     |   |                                 |  |
| 5                   |                        |         | Deposits                  |              |   |  |          | -                   |   |                                 |  |
|                     |                        |         |                           |              |   |  |          |                     |   |                                 |  |
|                     |                        |         |                           |              |   |  |          | 1                   |   |                                 |  |
| 123_                |                        |         | Alluvium                  |              |   |  |          |                     |   |                                 |  |
|                     |                        |         | Deposits                  | SW-SM        |   |  |          | _                   |   |                                 | (120.9 - 133.2') 55 bags (128%)  |
| *12b                |                        |         |                           |              |   |  |          |                     |   |                                 | the calculated volume due to   |
|                     |                        |         | Allunium                  |              |   | (120.9 - 133.2')   |          | $\exists$           |   | (120.0. 122.21)                 | potential voids forming during<br>drilling or the finer grained lower  |
| 5127<br>₽           |                        |         | Deposits                  | SM           |   | Red Flint Sand   |          |                     |   | (120.9 - 133.2 )<br>43 bags     | filter pack entering the well through  |
|                     |                        |         |                           |              |   | 0.35-0.45 10101  |          |                     |   |                                 | installation. Swabbed the fillter  |
| ≝128<br>≩           |                        |         |                           |              |   |  |          |                     |   |                                 | prior to installation of the bentonite   |
|                     |                        |         |                           |              |   |  |          | -[::::              |   |                                 | seal.  |
| 129                 | FW-02B-<br>VAS-127-13  | 2       | Alluvium                  | sw           |   |  | <b> </b> | 7                   |   |                                 |  |
|                     | (36 ppb)<br>8/31/2022  |         | Deposits                  |              |   |  |          | 1                   |   |                                 |  |
| ₹130<br>≅           | 11:00                  |         |                           |              |   |  |          | ] ((                |   |                                 |  |
|                     |                        |         |                           |              |   |  |          |                     |   |                                 |  |
|                     |                        |         | Alluvium                  |              |   |  |          |                     |   |                                 |  |
|                     |                        |         | Deposits                  | SM           |   |  |          | -                   |   |                                 | Nata Oandustad "Dummu Taal"  |
|                     |                        |         |                           |              |   |  |          | <b>-</b>            | (132.0 - 137.0')                                      |                                 | Pre-alignment test to  |
| 5 – –<br>=<br># 100 |                        |         |                           |              | × × ×<br>× × ×  |  |          |                     | 12" SHUR-GRIP   |                                 | approximately 132.5 ft bgs to<br>confirm there were no obstructions  |
|                     |                        |         | Weathered                 |              |   |  |          |                     | SDR-17 PVC Sump                                       |                                 | in the well post construction.   |
| 12/                 |                        |         | Bedrock -<br>Conglomerate | N/A          |   |  |          |                     |   |                                 |  |
|                     |                        |         |                           |              | $\begin{array}{c} \times \ \times \ \times \\ \times \ \times \ \times \end{array}$ | (134.0 135.0)  |          |                     |   |                                 |  |
| 135 – –             |                        |         |                           |              |   | Kwik-Zip Centralizer   |          |                     |   |                                 |  |
| E _ 100_            | FW-02B-                | 7       |                           |              |   |  |          |                     |   |                                 |  |
| 136                 | (Sample                |         |                           |              | $\begin{array}{c} \times \times \times \\ \times \times \end{array}$                |  |          |                     | •   |                                 |  |
| ,100                | disregraded            |         |                           |              |   | (133.2 - 140.0')   |          |                     |   | (122.2 140.0)                   | (122.2 140.0') 20 bags (106%)  |
| 137                 | as water not<br>likely |         | Compotent                 |              |   | (20x40) Lapis Lustre   |          |                     |   | (133.2 - 140.0 )<br>27.3 bags   | Note: Backfill sand  |
|                     | representativ          | e<br>d  | Bedrock -                 | N/A          | $\begin{vmatrix} x & x & x \\ x & x & x \end{vmatrix}$                              | Sand   |          | 7:::                | (137.0 - 137.95')                                     |                                 |  |
| 5 – –<br>138        | is considered          | d       | Conglomerate              |              |   |  |          |                     | 12" 316 SS  |                                 |  |
| 130<br>             | bearing                |         |                           |              |   |  |          | <u>.</u>            | End Cap   |                                 |  |
| 130                 | 9/1/2022               |         |                           |              |   |  |          |                     |   |                                 |  |
| <br>                | 09:22                  | 1       |                           |              | $\begin{vmatrix} x & x & x \\ x & x & x \end{vmatrix}$                              |  |          |                     |   |                                 |  |
|                     |                        |         |                           | N/A          | $\begin{array}{c c} x & x & x \\ \hline x & x & x \\ x & x & x \end{array}$         |  |          |                     | ]   |                                 |  |
| Abbre               | viations: U            | sc      | S = Unified               | Soil Cla     | assificat   | ion System, ft = feet,   | bgs -    | - belo              | w ground surface, ar                                  | nsl = above mean                | sea level, SS = Stainless  |
| Steal,              | NR = No R              | eco     | overy, N/A =              | = Not A      | pplicabl  | e, GW = groundwate   | r, ppl   | o = pa              | rts per billion, Notes:                               | Solid blue water ta             | able marks represent depth to  |
| water               | (ft. bgs.) m           | eas     | ured post c               | levelopi     | ment.   |  |          | •                   |   |                                 |  |
| PH I                |                        |         |                           |              |   |  |          |                     |   |                                 |  |

| 9             | ARC                     | ADIS                                   |              |                                       | Well Const   | ruction Log                   | :                              | Sheet: 8 of 8  |
|---------------|-------------------------|--|--------------|---------------------------------------|--|-------------------------------|--------------------------------|--|
| Date S        | Started:                | 10/23/2022                             |              |                                       | _Surface Elevation:  | 551.67 ft amsl                |                                | V-02B  |
| Date C        | Completed:              | 11/05/2022                             |              |                                       | _Shallow Well Elevation:   | N/A                           |                                |  |
| Drilling      | Co.:                    | Cascade                                |              |                                       | _Deep Well Elevation:  | N/A                           | Client: <u>PG&amp;I</u>        | Ξ  |
| Drilling      | Method:                 | Dual Rotary                            |              |                                       | Northing (NAD83):  | 2100637.96                    | Project: Final                 | GW Remedy Phase 2A   |
| Driller       | ,<br>Name:              | Josh Saldana                           |              |                                       | Easting (NAD83):   | 7614544.74                    | Location: PG&I                 | E Topock. Needles California   |
| Drilling      | Asst:                   |  | A            |                                       | Borehole Diameter:   | 22-24 inches                  |                                |  |
| Logge         | r.                      | Ellen Redner                           |              |                                       | Static Water Level   | See Log for Depths            | Project Numbe                  | r: 30126255  |
| Editor        |                         | Sean McGran                            | e            |                                       | Development End Date:  | 11/19/2022                    |                                |  |
| Total [       | )enth:                  | 142 06 ft bas                          | 0            |                                       | Well Completion:   | Elush Stick-up X              | —<br>To Be Completed           | in Well Vault  |
| Total         |                         |  |              |                                       |  |                               |                                |  |
| Depth<br>(ft) | Groundwate<br>Sample ID | Geologic<br>Formation                  | USCS<br>Code | USCS<br>Class                         | Consid   |                               | Calculated<br>Material Volumes | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume  |
|               |                         | Competent<br>Bedrock -<br>Conglomerate | N/A          | × × × × × × × × × × × × × × × × × × × | (140.0 - 142.1')<br>Cemex #8 (4x16)<br>Mesh Lapis Lustre<br>Sand and formation |                               |                                | Note: After circulating to flush<br>casing, the casing was advance by<br>pushing the casing without<br>advancing drill string and the<br>cuttings and temp backfill sand |
| 142           |                         |  |              | X X X                                 | cuttings   |                               |                                | below 140 ft were not removed.   |
|               |                         |  |              |                                       |  |                               |                                |  |
| 143<br>6      |                         |  |              |                                       |  |                               |                                | <b>..</b>  |
|               |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 143           |                         |  |              |                                       |  |                               |                                |  |
| 146           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 147           |                         |  |              |                                       |  |                               |                                |  |
| 1/9           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 149           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| a150          |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              | V                                     |  |                               |                                |  |
| 2             |                         |  |              |                                       |  | •                             |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 154           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       | _  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 156           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 158           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| 159           |                         |  |              |                                       |  |                               |                                |  |
|               |                         |  |              |                                       |  |                               |                                |  |
| Abbre         | viations: U             | SCS = Unified                          | Soil C       | assificat                             | ion System, ft = feet, bgs   | = below ground surface, an    | nsl = above mean               | sea level, SS = Stainless  |
| Steal,        | NR = No R               | ecovery, N/A                           | = Not A      | pplicabl                              | e, GW = groundwater, pp  | b = parts per billion, Notes: | Solid blue water ta            | able marks represent depth to  |
| water         | (ft. bgs.) m            | easured post o                         | levelop      | ment.                                 |  |                               |                                |  |

| 9                  | AR             | CADI                 | S                        |                     | Bo           | oring           | Log  | She  | eet: 1 of                                 | 8   |
|--------------------|----------------|----------------------|--------------------------|---------------------|--------------|-----------------|--|--|---|---|
| Date S             | started        | 08/20/2              | 2022                     |                     | Surface      | e Elevat        | ion: <u>551.67 ft amsl</u>   | Boring No.:  | FW-02B                                    | Pilot                                     |
| Date C             | Comple         | ted: <u>09/01/2</u>  | 2022                     |                     | Northin      | ng (NAE         | 983): <u>2100637.96</u>  | Doning iton  |   |   |
| Drilling           | Co.:           | Casca                | de                       |                     | Easting      | g (NAD8         | 33): <u>7614544.74</u>   | Client: <u>PG&amp;E</u>                            |   |   |
| Drilling           | Metho          | od: <u>Sonic I</u>   | Drilling                 |                     | Total D      | epth:           | <u>142 ft bgs</u>  | Project: Final G                                   | W Remedy Pł                               | nase 2A                                   |
| Drill Ri           | д Туре         | : <u>Boart L</u>     | _ongyear drill           | head                | Boreho       | ole Diarr       | neter: <u>4-8 inches</u>   | Location: PG&E                                     | Topock, Need                              | les California                            |
| Driller            | Name:          | Matt A               | rnold                    |                     | Depth t      | to First        | Water: <u>102.0 ft bgs</u>   |  |   |   |
| Drilling           | Asst:          | <u>LA / IS</u>       | / DH                     |                     | Sampli       | ng Meth         | nod: <u>4 inch x 10 ft. Core Barrel</u>  | Project Number:                                    | 30126255                                  |   |
| Logge              | r:             | J. And               | erson / L. Mil           | ando                | Sampli       | ng Inter        | val: <u>Continuous</u>   |  |   |   |
| Editor:            |                | <u>Sean N</u>        | McGrane                  |                     | Conver       | rted to V       | Vell: 🗵 Yes 🗌 No   |  |   |   |
| _                  | ≥              |                      |                          | ici n               |              |                 |  |  |   |   |
| Depth<br>(ft)      | Recove<br>(ft) | Sieve<br>Sample ID   | Groundwater<br>Sample ID | Geolog<br>Formati   | USCS<br>Code | USCS<br>Class   | Soil Description   |  | Drilling Notes                            | Drilling Fluid                            |
| 1                  |                |                      |                          | Fluvial             |              |                 | (0-2 ft) Well graded sand with gravel (SW); ligh<br>very fine to very coarse grained, subangular to<br>granules, subangular; trace small to very large | nt gray (10YR 7/2);<br>subround; trace<br>pebbles, | (0.0 - 5.0')<br>Air-knifed for<br>utility | (0.0 - 5.0')<br>No drilling fluid<br>used |
| - '                |                |                      |                          | Deposits            | SW           | P               | subangular; poorly sorted; dry; NOTE: sample air-knifing activities.   | disturbed from                                     | clearance<br>sediments not                |   |
|                    |                |                      |                          |                     |              |                 |  |  | logged.                                   |   |
|                    |                |                      |                          |                     |              | <u>~~</u> ~     | (2-8 ft) No Recovery   |  |   |   |
|                    |                |                      |                          |                     |              | 1\ /            |  |  |   |   |
| ⊢° –               |                |                      |                          |                     | 1            | \ /             |  |  |   |   |
|                    |                |                      |                          |                     |              | $  \rangle /  $ |  |  |   |   |
| - 4                | 2              |                      |                          |                     |              | $  \rangle /  $ |  |  |   |   |
|                    |                |                      |                          |                     |              | V               |  |  |   |   |
| - <sup>5</sup>     |                |                      |                          |                     | NR           | ΙŇΙ             |  |  |   |   |
|                    |                |                      |                          |                     |              | /               |  |  |   |   |
| - 0                |                |                      |                          |                     |              | $  / \rangle  $ |  |  |   |   |
|                    |                |                      |                          |                     |              |                 |  |  |   |   |
| - ′ -              |                |                      |                          |                     |              | / \             |  |  |   |   |
|                    |                |                      |                          |                     |              |                 |  |  |   |   |
| <u>     8     </u> |                |                      |                          |                     | ·            |                 | (8-10.5 ft) Well graded sand with gravel (SW);   | brown (10YR 5/3);                                  | (8.0 - 17.0')                             | (8.0 - 17.0')                             |
|                    |                |                      |                          |                     |              |                 | very fine to very coarse grained, subangular to<br>to very large pebbles, subangular; trace silt; tra  | subround; little small                             | Soft drilling,<br>core sample             | No drilling fluid<br>used                 |
| _ 9 _              |                |                      |                          | Fluvial             | sw           |                 | subangular; trace clay; poorly sorted; dry.  | 5 ,  | lost down hole,                           |   |
|                    |                | No Sieve             | No                       | Deposits            |              |                 |  |  | pushing loose                             |   |
| 10                 |                | Samples<br>Collected | Samples                  | •                   |              |                 |  |  | formation                                 |   |
|                    |                | Concoled             | Collected                |                     |              | 1000 1000 1     | (10.5-17 ft) No Recovery   |  | instead of the                            |   |
| 11                 |                |                      |                          |                     |              | 1 /             | . , , .  |  | oore barren.                              |   |
|                    |                |                      |                          |                     |              | $  $            |  |  |   |   |
| 12                 |                |                      |                          |                     |              | \ /             |  |  |   |   |
|                    | 2.5            |                      |                          | · · · ·             |              | $  \rangle /  $ |  |  |   |   |
| 13                 |                |                      |                          |                     |              | $  \rangle /  $ |  |  |   |   |
|                    |                |                      |                          |                     |              | V               |  |  |   |   |
| 14                 |                |                      |                          |                     | INF          | $  \land  $     |  |  |   |   |
|                    |                |                      |                          |                     |              | /               |  |  |   |   |
| 15                 |                |                      |                          |                     | 1            |                 |  |  |   |   |
|                    |                |                      |                          |                     |              |                 |  |  |   |   |
| 16                 |                |                      |                          |                     |              | / \             |  |  |   |   |
|                    |                |                      |                          |                     | 1            |                 |  |  |   |   |
| 17                 |                |                      |                          |                     | +            | ᡰᢆ᠆᠈ᠵ᠍ᢩᡒ        | (17-28 5 ft) Well graded sand with gravel (SW)   | brown (10YR 5/3)                                   | (17.0 - 22.0')                            | (17.0 - 22.0')                            |
|                    |                |                      |                          |                     |              | 2000            | very fine to very coarse grained, subangular to  | subround; little small                             | Core barrel                               | No drilling fluid                         |
| 18                 |                |                      |                          |                     | 1            |                 | subangular; trace clay; poorly sorted; dry.  | ice granules,                                      | the drill casing                          | used                                      |
|                    | 4.5            |                      |                          | Fluvial<br>Deposits | SW           |                 | (17.5-19.5 ft) Increase in the percentage of coa sediments.  | arser grained                                      | and the drill casing                      |   |
| 19                 |                |                      |                          |                     | 1            | 0               |  |  | advanced                                  |   |
|                    |                |                      |                          |                     | 1            |                 |  |  | 0.5-1 ft.                                 |   |
| 20                 |                |                      |                          | <br>                | <u> </u>     | <u>Received</u> |  |  | Potental void                             |   |
| Abbrev             | viations       | s: USCS = l          | Jnified Soil C           | lassification       | N Syster     | m, ft = f       | eet, bgs = below ground surface, ams   | sl = above mean se                                 | a level, NR = I                           | No Recovery,                              |
| N/A =              | Not Ap         | plicable, GV         | v = groundwa             | ater, ppb =         | parts p      | er billio       | n, Notes: Solid blue and hollow blue w   | vater table marks re                               | epresent depth                            | n to water (ft.                           |
| pgs.) fi           | irst end       | countered fro        | om logging ar            | nd depth to         | water        | measur          | ed during the first VAS interval, respec   | ctively. Apparent pa                               | artial recoverie                          | s can be the                              |
| result             | or pote        | nual compac          | cuon of sedim            | ients in the        | core b       | ag.             |  |  |   |   |

| 9             | AR               | CAD                              | S   |                       | Во           | ring          | J Log   | She   | eet: 2 of                                | 8                                    |
|---------------|------------------|----------------------------------|---|-----------------------|--------------|---------------|---|---|--|--------------------------------------|
| Date S        | Started:         | 08/20/                           | 2022                                      |                       | Surface      | Eleva         | tion: <u>551.67 ft amsl</u>   | Borina No.:   | FW-02B                                   | Pilot                                |
| Date C        | Comple           | eted: <u>09/01/</u>              | 2022                                      |                       | Northin      | g (NA[        | 083): <u>2100637.96</u>   |   |  |                                      |
| Drilling      | Co.:             | <u>Casca</u>                     | de  |                       | Easting      | (NAD          | 83): <u>7614544.74</u>  | _ Client: <u>PG&amp;E</u>   |  |                                      |
| Drilling      | Metho            | od: <u>Sonic</u>                 | Drilling                                  |                       | Total D      | epth:         | <u>142 ft bgs</u>   | _ Project: <u>Final G</u>   | N Remedy Ph                              | nase 2A                              |
| Drill Ri      | д Туре           | e: <u>Boart I</u>                | Longyear drill                            | head                  | Boreho       | le Dian       | neter: <u>4-8 inches</u>  | _ Location: <u>PG&amp;E</u> ]   | Fopock, Need                             | les California                       |
| Driller       | Name:            | <u>Matt A</u>                    | rnold                                     |                       | Depth t      | o First       | Water: <u>102.0 ft bgs</u>  |   |  |                                      |
| Drilling      | Asst:            | <u>LA / IS</u>                   | S/DH                                      |                       | Samplir      | ng Met        | hod: <u>4 inch x 10 ft. Core Barrel</u>   | _ Project Number:   | 30126255                                 |                                      |
| Logge         | r:               | <u>J. And</u>                    | erson / L. Mila                           | ando                  | Samplir      | ng Inte       | rval: <u>Continuous</u>   | _   |  |                                      |
| Editor:       |                  | <u>Sean I</u>                    | McGrane                                   |                       | Conver       | ted to        | Well: 🖄 Yes 🛄 No  |   |  |                                      |
| Depth<br>(ft) | Recovery<br>(ft) | Sieve<br>Sample ID               | Groundwater<br>Sample ID                  | Geologic<br>Formation | USCS<br>Code | USCS<br>Class | Soil Description  |   | Drilling Notes                           | Drilling Fluid                       |
| <br>21<br>    | 4.5              |                                  |   |                       |              |               | (17-28.5 ft) Well graded sand with gravel (SW<br>very fine to very coarse grained, subangular to<br>to very large pebbles, subangular; trace silt; tr<br>subangular; trace clay; poorly sorted; dry.                  | (); brown (10YR 5/3);<br>o subround; little small<br>ace granules,            | forming or<br>extremely soft<br>sand.    |                                      |
| 23            |                  |                                  |   |                       |              |               |   |   |  |                                      |
| 24            |                  |                                  |   | Fluvial<br>Deposits   | sw           |               | (24 ft) Increase in the percentage of coarser g<br>granules with depth. Lower percentage of silt<br>depth.  | rained sediemnt and percentage with   |  |                                      |
|               |                  |                                  |   |                       |              |               |   |   |  |                                      |
| 26<br>        |                  |                                  |   |                       |              |               |   |   |  |                                      |
| 27            | 7                |                                  |   |                       |              |               |   |   |  |                                      |
| 28            |                  |                                  |   |                       |              |               |   |   |  |                                      |
| 29            |                  |                                  |   |                       |              |               | (28.5-31 ft) Well graded sand with gravel (SW 7/2); very fine to very coarse grained, subangu   | ); light gray (10YR<br>llar to subround; little                               |  |                                      |
| 30            |                  | No Sieve<br>Samples<br>Collected | No<br>Groundwater<br>Samples<br>Collected | Fluvial<br>Deposits   | sw           |               | small to very large pebbles, subangular to sub<br>granules, subangular; trace silt; dry; pebbles of<br>metadiorite; granule and pebble size decrease<br>percentage of sand decreases with depth; fria<br>cementation. | pround; trace<br>composed of<br>es with depth;<br>ble caliche                 |  |                                      |
| 31            |                  |                                  |   |                       |              |               | (31-37 ft) Well graded sand with gravel (SW);   | light gray (10YR 7/2);  |  |                                      |
| 32            |                  |                                  |   |                       |              |               | very large pebbles, subangular; trace granule:<br>silt; poorly sorted; dry; larger pebbles are com  | s, subangular; trace<br>posed of metadiorite.                                 | (32.0 - 107.0')<br>Rough drilling        | (32.0 - 107.0')<br>No drilling fluid |
| 33            |                  |                                  |   |                       |              |               |   |   | potential<br>boulder at<br>approximately | used                                 |
| 34            |                  |                                  |   | Alluvium              | SW           |               |   |   | 32 ft bgs.                               |                                      |
| L _           | 4.5              |                                  |   | Deposits              |              |               |   |   |  |                                      |
| 35            |                  |                                  |   |                       |              |               |   |   |  |                                      |
| <br>36        |                  |                                  |   |                       |              |               |   |   |  |                                      |
|               |                  |                                  |   |                       |              |               |   |   |  |                                      |
| 37<br><br>38  |                  |                                  |   | Alluvium              | SW-SM        |               | (37-39.5 ft) Well graded sand with silt (SW-SI<br>7/2); very fine to coarse grained, subangular to<br>trace small pebbles, subround; trace granules<br>strong HCI reaction; friable caliche cementation               | N); light gray (10YR<br>o subround; trace silt;<br>s, subangular; dry;<br>on. |  |                                      |
| 39            | 7.5              |                                  |   |                       |              |               |   |   |  |                                      |
| 40            |                  |                                  |   |                       |              |               |   |   |  |                                      |
| Abbrev        | viations         | s: USCS = l                      | Jnified Soil C                            | lassificatior         | Systen       | n, ft = 1     | eet, bgs = below ground surface, am   | sl = above mean se  | a level, NR = I                          | No Recovery                          |
| N/A =         | Not Ap           | oplicable, GV                    | V = groundwa                              | ater, ppb =           | parts p      | er billio     | n, Notes: Solid blue and hollow blue  | water table marks re  | present depth                            | n to water (ft.                      |
| bgs.) f       | irst end         | countered fro                    | om logging ar                             | nd depth to           | water r      | neasur        | ed during the first VAS interval, respe   | ctively. Apparent pa  | rtial recoverie                          | s can be the                         |
| result        | of pote          | ntial compac                     | ction of sedim                            | ents in the           | core ba      | ag.           |   |   |  |                                      |

| 9                | AR               | CAD                              | S   |                       | Во           | oring                    | Log  | She  | eet: 3 of        | 8              |
|------------------|------------------|----------------------------------|---|-----------------------|--------------|--------------------------|--|--|------------------|----------------|
| Date S           | Started:         | 08/20/                           | 2022                                      |                       | Surface      | e Elevat                 | tion: <u>551.67 ft amsl</u>  | Boring No.:  | FW-02B           | Pilot          |
| Date (           | Comple           | ted: <u>09/01/</u>               | 2022                                      |                       | Northin      | g (NAC                   | 083): <u>2100637.96</u>  |  | <u></u>          |                |
| Drilling         | J Co.:           | <u>Casca</u>                     | de  |                       | Easting      | (NAD8                    | 33): <u>7614544.74</u>   | _ Client: <u>PG&amp;E</u>  |                  |                |
| Drilling         | Metho            | od: <u>Sonic</u>                 | Drilling                                  | ·                     | Total D      | epth:                    | <u>142 ft bgs</u>  | _ Project: <u>Final G</u>  | W Remedy Pl      | nase 2A        |
| Drill R          | д Туре           | : <u>Boart I</u>                 | Longyear drill                            | head                  | Boreho       | le Diarr                 | neter: <u>4-8 inches</u>   | _ Location: <u>PG&amp;E</u>  | Topock, Need     | les California |
| Driller          | Name:            | <u>Matt A</u>                    | rnold                                     |                       | Depth t      | o First                  | Water: <u>102.0 ft bgs</u>   |  |                  |                |
| Drilling         | J Asst:          | LA / IS                          | <u>S / DH</u>                             |                       | Samplii      | ng Meth                  | nod: <u>4 inch x 10 ft. Core Barrel</u>  | _ Project Number:  | 30126255         |                |
| Logge            | r:               | <u>J. And</u>                    | erson / L. Mila                           | ando                  | Samplii      | ng Inter                 | val: <u>Continuous</u>   | _  |                  |                |
|                  |                  | <u>Sean I</u>                    | McGrane                                   | '                     | Conver       | ted to V                 | Vell: 🗵 Yes 🗌 No   | I  |                  |                |
| Depth (ft)       | Recovery<br>(ft) | Sieve<br>Sample ID               | Groundwater<br>Sample ID                  | Geologic<br>Formation | USCS<br>Code | USCS<br>Class            | Soil Description   |  | Drilling Notes   | Drilling Fluid |
|                  | 7.5              |                                  |   | Alluvium<br>Deposits  | sw           |                          | (39.5-46.5 ft) Well graded sand with gravel (S<br>gray (10YR 6/2), and light gray (10YR 7/1); ve<br>grained, subangular to subround; little granul<br>small pebbles, subangular; trace silt; poorly s<br>reaction; strong caliche cementation.   | SW); light brownish<br>ery fine to very coarse<br>es, subangular; trace<br>sorted; dry; strong HCI     |                  |                |
| 47               |                  |                                  |   | Alluvium<br>Deposits  | SW-SM        |                          | (46.5-47.5 ft) Well graded sand with silt (SW<br>7/1); fine to very coarse grained, subangular<br>trace granules, subangular to subround; trace<br>subangular; poorly sorted; dry; moderate HCl  | -SM); light gray (10YR<br>to subround; little silt;<br>e small pebbles,<br>reaction; moderate          |                  |                |
| 48<br>49         |                  |                                  |   | Alluvium<br>Deposits  | SW-SM        |                          | caliche cementation.<br>(47.5-49 ft) Well graded sand with silt and gra<br>orange yellow (10YR 8/2), and light gray (10Y<br>coarse grained, subangular to subround; little<br>pubbles subangular to subround; little                             | avel (SW-SM); pale<br>(R 7/1); fine to very<br>e small to large  |                  |                |
| 50               | 5                | No Sieve<br>Samples<br>Collected | No<br>Groundwater<br>Samples<br>Collected | Alluvium<br>Deposits  | SW-SM        |                          | subargular to subround; poorly sorted; dry; m<br>moderate caliche cementation.<br>(49-50.5 ft) Well graded sand with silt and gr<br>orange yellow (10YR 8/2), and light gray (10<br>coarse grained, subangular to subround: little               | avel (SW-SM); pale<br>'R 7/1); fine to very<br>: small to large  |                  |                |
| 51<br>52         |                  |                                  |   | $\langle \rangle$     |              |                          | pebbles, subangular to subround; trace silt; tr<br>subangular to subround; trace clay; poorly so<br>HCI reaction; moderate caliche cementation.<br>(49-50.5 ft) Decrease in silt to approximately<br>the amout moderate caliche cementation.     | race granules,<br>rted; dry; moderate<br>1% silt, and increase   |                  |                |
| <br>53<br><br>54 | - 3              |                                  |   | Alluvium<br>Deposits  | SW           |                          | (50.5-57 ft) Well graded sand with gravel (SV<br>7/2); very fine to coarse grained, subangular to<br>small to medium pebbles, subangular to sub<br>subangular to subround; trace silt; trace clay;<br>moderate HCI reaction; weak caliche cement | V); light gray (10YR<br>co subround; little<br>ound; little granules,<br>poorly sorted; dry;<br>ation. |                  |                |
| 55               |                  |                                  |   |                       |              |                          |  |  |                  |                |
| 56<br>57         |                  |                                  |   |                       |              |                          |  |  |                  |                |
|                  |                  |                                  |   | Alluvium              | SW           | <u>ۅ؞ؚ؞ؚڹ</u>            | (57-57.5 ft) Well graded sand with gravel (SV  | V); light gray (10YR   |                  |                |
| 58<br><br>59     | 8                |                                  |   | Alluvium<br>Deposits  | SW-SM        |                          | (12), very line to coarse grained, subangular i<br>small to medium pebbles, subangular to subi<br>subangular to subround; trace silt; trace clay;<br>moderate HCI reaction; weak caliche cement  | o subround; little<br>round; little granules,<br>poorly sorted; dry;<br>ation.                         |                  |                |
| 60               | viations         |                                  | Inified Soil Cl                           | assification          | Sveter       | <u>[•]•]</u><br>n ft – f | eet has - below around surface, or   | uel – above moan ac  | alevel ND -      |                |
|                  | Not Ar           | $\frac{1}{2}$                    |   | assilication          | oysier       | n, n = 10                | eer, bys - below ground surface, am  | isi – auove mean se<br>water table marks ro  | a ievel, INK =   | nu recovery,   |
| hae ) f          | irst end         | ountered fr                      | v – grounuwa<br>om logging on             | nd denth to           | water r      |                          | ed during the first VAS interval room  | ectively Annarent n  | artial recoverio | s can be the   |
| result           |                  | ntial compa                      | ction of sedim                            | ents in the           | core h       | 10asul                   | ca daring the list vite litterval, lesp  | σοινοιγ. Αρραιοτιι μα  |                  |                |
| - Coult          |                  |                                  | Saon of Sculli                            |                       | 5010 00      | -y.                      |  |  |                  |                |

| 9                    | AR              | CADI                             | S   |                      | Во                 | oring                     | Log   | She   | eet: 4 of        | 8              |
|----------------------|-----------------|----------------------------------|---|----------------------|--------------------|---------------------------|---|---|------------------|----------------|
| Date S               | started:        | 08/20/2                          | 2022                                      |                      | Surface            | e Eleva                   | tion: <u>551.67 ft amsl</u>   | Boring No.:   | FW-02B           | Pilot          |
| Date C               | Comple          | ted: <u>09/01/</u>               | 2022                                      |                      | Northin            | g (NAI                    | 083): <u>2100637.96</u>   |   | <u> •==</u>      |                |
| Drilling             | Co.:            | Casca                            | de  |                      | Easting            | (NAD                      | 33): <u>7614544.74</u>  | Client: <u>PG&amp;E</u>   |                  |                |
| Drilling             | Metho           | od: <u>Sonic</u>                 | Drilling<br>ongvoor drill                 | hood                 | l otal D<br>Doroho | epth:                     | <u>142 tt bgs</u>   | Project: Final G  | W Remedy Pl      | las California |
| Drillor<br>Drillor   | g Type<br>Nomo: | Boart L                          | <u>_ongyear anii</u><br>roold             | nead                 | Boreno<br>Donth t  | e Diar                    | Neter: <u>4-8 incres</u>  | Location: PG&E  | гороск, меео     | les Calilomia  |
| Drilling             | i Δeet·         |                                  |   |                      | Samplir<br>Samplir | o riisi<br>na Met         | volter. <u>102.0 it bys</u>   | Project Number:   | 30126255         |                |
|                      | r.              | .L And                           | erson / I Mila                            | ando                 | Samplir<br>Samplir | ng Inte                   | val: Continuous   |   | 30120233         |                |
| Editor:              |                 | Sean M                           | VcGrane                                   |                      | Conver             | ted to                    | Vell: X Yes No  | -   |                  |                |
|                      | >               |                                  |   | <u>ں ج</u>           |                    |                           |   |   |                  |                |
| Depth<br>(ft)        | Recover<br>(ft) | Sieve<br>Sample ID               | Groundwater<br>Sample ID                  | Geologi<br>Formatic  | USCS<br>Code       | USCS<br>Class             | Soil Description  |   | Drilling Notes   | Drilling Fluid |
| 61<br>62             |                 |                                  |   | Alluvium<br>Deposits | SW-SM              |                           | (57.5-62.5 ft) Well graded sand with silt and gr<br>brown (10YR 5/3); very fine to coarse grained,<br>subround; little granules, subangular to subrou<br>small to medium pebbles, subangular to subro<br>poorly sorted; dry; moderate HCI reaction; wea<br>cementation.<br>(60-62.5 ft) Decrease in fine content. | avel (SW-SM);<br>subangular to<br>ind; little silt; trace<br>und; trace clay;<br>ik caliche                           |                  |                |
| 63<br>64<br>64       | 8               |                                  |   | Alluvium<br>Deposits | sw                 |                           | (62.5-65 ft) Well graded sand with gravel (SW)<br>(10YR 6/2); very fine to coarse grained, subang<br>subangular; little small to large pebbles, subar<br>trace clay; poorly sorted; dry; moderate HCI re-<br>cementation.   | ); light brownish gray<br>gular; little granules,<br>ngular; trace silt;<br>action; weak caliche                      |                  |                |
| 65                   |                 |                                  |   |                      |                    | <u></u>                   | (65-67 ft) No Recovery  |   |                  |                |
| 66                   | 0               |                                  |   |                      | NR                 |                           |   |   |                  |                |
| 67                   |                 |                                  |   | Alluvium             | sw                 |                           | (67-68 ft) Well graded sand with gravel (SW);<br>(10YR 6/2); very fine to coarse grained, subang  | light brownish gray<br>gular; little granules,  |                  |                |
| 68                   |                 |                                  |   |                      |                    |                           | subangular; little small to large pebbles, suban<br>trace clay; poorly sorted; dry; moderate HCI re-<br>cementation.  | igular; trace silt;<br>action; weak caliche   |                  |                |
| 69<br><br>70         |                 | No Sieve<br>Samples<br>Collected | No<br>Groundwater<br>Samples<br>Collected | Alluvium<br>Deposits | sw                 |                           | (68-71 ft) Well graded sand with gravel (SW);<br>fine to very coarse grained, subangular to subr<br>subangular to subround; little small to large pe<br>subround; trace silt; trace clay; poorly sorted; c<br>moderate HCI reaction; weak caliche cementa   | light gray (10YR //2);<br>ound; little granules,<br>bbles, subangular to<br>lry to moist;<br>tion.                    |                  |                |
| 71<br>72<br>73       | 7               |                                  |   | Alluvium             | SM                 |                           | (71-74.5 ft) Silty sand (SM); light gray (10YR 7/<br>coarse grained, subangular to subround; some<br>large pebbles, subangular to subround; trace g<br>to subround; trace clay; poorly sorted; dry; mod<br>weak caliche cementation.<br>(72-74.5 ft) Decrease in silt, granules and pebl                          | (2); very fine to very<br>s silt; trace small to<br>granules, subangular<br>derate HCI reaction;<br>bles, increase in |                  |                |
| 73                   |                 |                                  |   |                      |                    |                           |   |   |                  |                |
| 75<br><br>76         |                 |                                  |   | Alluvium<br>Deposits | SW                 |                           | ( <i>v</i> +.o- <i>i i</i> .5 m) well graded sand with gravel (SV<br>(10YR 5/4); fine to very coarse grained, subang<br>little granules, subangular to subround; trace s<br>pebbles, subangular to subround; trace silt; tra<br>sorted; dry to moist; moderate HCI reaction; we<br>cementation.                   | w j; yellowish brown<br>gular to subround;<br>mall to medium<br>ice clay; poorly<br>eak caliche                       |                  |                |
| _77_                 |                 |                                  |   |                      |                    |                           | (77 ft) Decrease in small to large peoples incr   | ease in sand  |                  |                |
| 78<br>78<br>79<br>79 | 8               |                                  |   | Alluvium<br>Deposits | SW-SM              |                           | (77.5-83 ft) Well graded sand with silt and grav<br>yellowish brown (10YR 5/4); very fine to very or<br>subangular to subround; little silt; little small to<br>subangular; trace granules, subangular to sub<br>poorly sorted; dry; moderate HCI reaction; wea<br>cementation.                                   | vel (SW-SM);<br>parse grained,<br>plarge pebbles,<br>round; trace clay;<br>ik caliche                                 |                  |                |
| 80<br>Abbrev         | viations        | : USCS = 1                       | Inified Soil CI                           | assification         | Svster             | <u>.•[•.]</u><br>n ft = ⁺ | eet bas = below around surface amo  | al = above mean se  | <br>a level NR = | No Recovery    |
| N/A =                | Not Ar          | plicable GV                      | V = groundwa                              | ter. ppb =           | parts n            | er billio                 | n. Notes: Solid blue and hollow blue v  | vater table marks re  | epresent dent    | to water (ff   |
| bas.) f              | irst end        | countered fro                    | om logaina an                             | d depth to           | water r            | neasu                     | ed during the first VAS interval, respec  | ctively. Apparent pr  | artial recoverie | s can be the   |
| result o             | of pote         | ntial compac                     | ction of sedim                            | ents in the          | core ba            | ag.                       | <u> </u>  | , , ,   |                  |                |

| 9                | AF              | RCADI                                       | S                             |                      | Bo                 | oring               | j Lo   | g   | S  | heet: 5 of  | 8  |
|------------------|-----------------|---|-------------------------------|----------------------|--------------------|---------------------|--|---|--|---|--|
| Date S           | Started         | : 08/20/                                    | 2022                          |                      | Surfac             | e Eleva             | tion:  | 551.67 ft amsl  | - Boring No  | .: FW-02B   | Pilot  |
| Date C           | Comple          | eted: <u>09/01/</u>                         | 2022                          |                      | Northir            | ig (NAE             | D83):  | 2100637.96  |  |   |  |
| Drilling         | Co.:            | Casca                                       | de                            |                      | Easting            | ) (NAD              | 83):   | <u>7614544.74</u>   | Client: PG&  |   | 0.4  |
| Drilling         | Meth            | od: <u>Sonic</u>                            | <u>Drilling</u>               | baad                 | l otal L<br>Daraha | epth:               |  | <u>142 ft bgs</u>   | Project: <u>Final</u>  | GW Remedy Pl  | hase 2A                                      |
| Drillor          | g Type<br>Nomo  | Boart i<br>Mott A                           | <u>_ongyear anii</u><br>roold | nead                 | Borenc             | he Dian<br>to Eirct | Neter:   | <u>4-8 incries</u>  | Location: PG&  | <u>- Topock, Need</u>   | lies Calilomia                               |
| Drilling         | Δeet·           | . <u>Ινιαιι Α</u><br>ΙΔ/ΙΩ                  |                               |                      | Depin<br>Samnli    | na Met              | hod.   | / inch x 10 ft Core Barrel  | <br>Project Number   | · 30126255  |  |
|                  | r.              |   | erson / I Mil:                | ando                 | Sampli<br>Sampli   | ng Inte<br>ng Inte  | nou.<br>rval:  |   |  | . <u>30120233</u>   |  |
| Editor:          | ••              | Sean M                                      | McGrane                       |                      | Conve              | ted to              | Well:  | X Yes No  |  |   |  |
|                  | ~               |   | _                             | 0 5                  |                    |                     |  |   |  |   |  |
| Depth<br>(ft)    | Recovel<br>(ft) | Sieve<br>Sample ID                          | Groundwater<br>Sample ID      | Geologi<br>Formatio  | USCS<br>Code       | USCS                |  | Soil Description  |  | Drilling Notes  | Drilling Fluid                               |
| <br>81<br><br>82 |                 |   |                               | Alluvium<br>Deposits | SW-SM              |                     | (77.5-83<br>yellowis<br>subang<br>subang<br>poorly s<br>cement | 3 ft) Well graded sand with silt and g<br>h brown (10YR 5/4); very fine to ver<br>ular to subround; little silt; little smal<br>ular; trace granules, subangular to s<br>orted; dry; moderate HCI reaction; v<br>ation. | rravel (SW-SM);<br>y coarse grained,<br>I to large pebbles,<br>ubround; trace clay;<br>yeak caliche  |   |  |
| 83               |                 |   |                               |                      |                    |                     | (83-92.  | 5 ft) Well graded sand (SW); light gr   | ay (10YR 7/2); very fine   |   |  |
| 84               | 8               |   |                               |                      |                    |                     | to very of<br>subang<br>subang<br>reaction                     | coarse grained, subangular to subro<br>ular to subround; trace small to mec<br>ular to subround; trace silt; poorly so<br>ı; strong caliche cementation; increa   | und; trace granules,<br>ium pebbles,<br>irted; dry; moderate HCI<br>ise in the percentage of         |   |  |
| 85               |                 | No Sieve<br>Samples<br>Collected            |                               |                      |                    |                     | finer gra  | ained sand and silt with depth.   |  |   |  |
| 86<br>           |                 |   |                               |                      |                    |                     |  | 0   |  |   |  |
| 87               |                 | -   |                               |                      |                    |                     |  |   |  |   |  |
|                  |                 |   |                               | Alluvium<br>Deposits | sw                 |                     |  |   |  |   |  |
|                  |                 |   | No<br>Groundwater             |                      |                    |                     |  |   |  |   |  |
| 89               |                 |   | Samples<br>Collected          |                      |                    |                     |  |   |  |   |  |
| L _              | 3.8             |   |                               |                      |                    |                     |  |   |  |   |  |
| 90               |                 |   |                               |                      |                    | ••••••              |  |   |  |   |  |
|                  |                 |   |                               |                      |                    |                     |  |   |  |   |  |
| 91               |                 | FW-02B-SS-<br>90-92.5                       |                               |                      |                    |                     |  |   |  |   |  |
|                  |                 | 8/25/2022<br>16:05                          |                               |                      |                    |                     |  |   |  |   |  |
| 92               |                 | -   |                               |                      |                    |                     |  |   |  |   |  |
|                  |                 |   |                               |                      |                    |                     | (92.5-99   | 9 ft) Well graded sand with silt and g  | ravel (SW-SM); light   |   |  |
| 93<br><br>94<br> | 3.9             | FW-02B-SS-<br>92.5-96<br>8/25/2022<br>16:10 |                               |                      |                    |                     | gray (10<br>subrour<br>medium<br>dry; trac<br>modera           | IVR 7/2); very fine to very coarse gra<br>id; little granules, angular to subang<br>pebbles, subangular to subround;<br>ice metadiorite pebbles; approximate<br>te caliche cementation.                                 | ined, subangular to<br>ular; little small to<br>ittle silt; poorly sorted;<br>ly 25% of the core has | ¥   |  |
| 95               |                 |   |                               |                      |                    |                     |  |   |  |   |  |
|                  |                 |   |                               | Alluvium             | sw-sM              |                     |  |   |  |   |  |
| 96               |                 |   |                               | Deposits             |                    |                     |  |   |  |   |  |
|                  |                 |   |                               |                      |                    |                     |  |   |  |   |  |
| <br><br>98       |                 | FW-02B-SS-<br>96-99<br>8/25/2022<br>16:15   | FW-02B-<br>VAS-97-102         |                      |                    |                     |  |   |  | (97.0 - 102.0')<br>VAS interval<br>had to be<br>resampled due<br>to the Cr (//) | (97.0 - 102.0')<br>No drilling fluid<br>used |
| <br>90           | 3.7             |   | (<0.025 ppb)<br>8/24/2022     |                      |                    |                     |  |   |  | inadventently   |  |
|                  |                 |   | 11:12                         | Alluvium             | 0144               |                     |  |   |  | filtered.   |  |
| 100              |                 |   |                               | Deposits             | 500                |                     |  |   |  |   |  |
| Abbre            | viation         | s: USCS = l                                 | Jnified Soil C                | lassification        | Syster             | n, ft = 1           | feet, bg   | s = below ground surface, a   | msl = above mean s   | sea level, NR =   | No Recovery                                  |
| N/A =            | Not Ap          | oplicable, GV                               | V = groundwa                  | ater, ppb =          | parts p            | er billio           | n, Note  | es: Solid blue and hollow blue  | e water table marks  | represent dept  | n to water (ft.                              |
| bgs.) f          | Irst en         | countered fro                               | om logging ar                 | nd depth to          | water              | measur              | red dur  | ng the first VAS interval, res  | bectively. Apparent  | partial recoverie   | s can be the                                 |
| esull (          | υ μοιε          |   | JUON OF SEAIM                 |                      |                    | ay.                 |  |   |  |   |  |

| 9                        | AR              |   | S  |                      | Bo           | oring         | J Log   |   |  |   | She                   | et: 6 of   | 8                                    |
|--------------------------|-----------------|---|--|----------------------|--------------|---------------|---|---|--|---|-----------------------|--|--------------------------------------|
| Date S                   | started         | 08/20/2                                     | 2022   | :                    | Surface      | e Eleva       | tion:   | 551.67 ft amsl  |  | Borina  | 10.:                  | FW-02B   | Pilot                                |
| Date C                   | Comple          | eted: <u>09/01/2</u>                        | 2022   |                      | Northin      | ig (NAE       | 083): <u>2</u>  | 2100637.96  |  | Bornigi   | 10                    |  | <u>1 110t</u>                        |
| Drilling                 | Co.:            | Cascad                                      | de   |                      | Easting      | (NAD          | 83):  | 7614544.74  |  | Client: PG  | έ&Ε                   |  |                                      |
| Drilling                 | Metho           | od: <u>Sonic [</u>                          | Drilling   |                      | Total D      | epth:         |   | 142 ft bgs  |  | Project: Fin  | al G\                 | <u>N Remedy Pł</u>   | nase 2A                              |
| Drill Ri                 | g Type          | e: <u>Boart L</u>                           | ongyear drill  | head I               | Boreho       | le Dian       | neter:  | 1-8 inches  |  | Location: PG  | &E 1                  | opock, Need  | les California                       |
| Driller                  | Name:           | <u>Matt Ar</u>                              | rnold  |                      | Depth t      | to First      | Water:  | 102.0 ft bgs  |  |   |                       |  |                                      |
| Drilling                 | Asst:           | <u>LA / IS</u>                              | / DH   | \$                   | Sampli       | ng Met        | hod:  | 1 inch x 10 ft. Core Ba   | arrel  | Project Num   | ber:                  | 30126255   |                                      |
| Logge                    | r:              | <u>J. Ande</u>                              | erson / L. Mila  | ando s               | Sampli       | ng Inte       | rval: 🧕   | Continuous  |  | -   |                       |  |                                      |
| Editor:                  |                 | <u>Sean N</u>                               | /IcGrane   | (                    | Conver       | ted to \      | Well: [   | 🛛 Yes 🗌 No  |  |   |                       |  |                                      |
| 5                        | ~               |   |  | 05                   |              |               |   |   |  |   |                       |  |                                      |
| Depth<br>(ft)            | Recovel<br>(ft) | Sieve<br>Sample ID                          | Groundwater<br>Sample ID   | Geologi<br>Formatic  | USCS<br>Code | USCS<br>Class |   | Soil Descri   | iption   |   |                       | Drilling Notes   | Drilling Fluid                       |
|                          | 3.7             | FW-02B-SS-<br>99-104                        |  | Alluvium             | SW           |               | (99-104 ft<br>7/2), some<br>subangula<br>trace sma<br>sorted; dr<br>cemented<br>percentag | Well graded sand with gra<br>brown (10YR 5/3); very fir<br>ir to subround; little granule<br>II to medium pebbles, suba<br>y to moist; moderate calich<br>sediment fragments decre<br>e of coarse grained sand ir | avel (SW);<br>ne to very c<br>es, subangu<br>angular; tra<br>ne cementat<br>eased with o<br>ncreases w | light gray (10YR<br>oarse grained,<br>ular to subround;<br>ce clay; poorly<br>ion; sizes of<br>depth; the<br>ith depth. |                       |  |                                      |
|                          |                 | 8/25/2022<br>16:20                          |  | Deposits             |              |               | (102) Incr  | ease in the percentage of n   | metadiorite  | pebbles.  |                       |  |                                      |
|                          | 3.5             | FW-02B-SS-                                  |  |                      |              |               | (104-108<br>very fine to<br>to large pe<br>subangula                                      | t) Well graded sand with g<br>o very coarse grained, suba<br>sbbles, subangular to subro<br>r to subround; trace silt; tra  | gravel (SW)<br>angular to s<br>ound; trace<br>ace clay; po   | ; brown (10YR 5/<br>oubround; little sn<br>granules,<br>porly sorted; mois  | 3);<br>nall<br>it.    |  |                                      |
| 106<br><br>107           |                 | 104-108<br>8/25/2022<br>16:25               |  | Alluvium<br>Deposits | SW           |               |   | 0,  |  |   |                       | (107.0   | (107.0                               |
|                          |                 |   |  |                      |              |               | (108-112)   | it) Well graded sand with si  | silt and grav  | el (SW-SM); brov  | vn                    | 112.0')<br>Bottom of<br>borehole<br>collapsed  | 112.0')<br>No drilling fluid<br>used |
| 109<br>110<br>110<br>111 | 3.6             | FW-02B-SS-<br>108-112<br>8/25/2022<br>16:30 | FW-02B-<br>VAS-107-<br>112<br>(<0.025 ppb)<br>8/24/2022<br>09:15 | Alluvium<br>Deposits | SW-SM        |               | coarse gri<br>medium p<br>subangula<br>the core h   | ), some light yenomism bio<br>ned, subangular to subro<br>ebbles, subangular to subr<br>ir to subround; trace clay; p<br>as moderate caliche ceme   | poorly sorte   | t; trace small to<br>granules,<br>d; moist; majorit   | v of                  | before sample<br>screen was<br>deployed,<br>tripped back in<br>to clear it out<br>and advance<br>the 6-inch<br>casing to 107<br>feet bgs. VAS<br>interval had to |                                      |
|                          |                 |   |  | X                    |              |               | (112-115)   | t) Silty sand (SM); brown (*  | (10YR 5/3);  | very fine to coars  | e                     | be resampled<br>due to the Cr<br>(VI)<br>inadventently   | (112.0 -                             |
| 113<br>                  |                 | FW-02B-SS-<br>112-115<br>8/25/2022<br>16:35 |  | Alluvium<br>Deposits | SM           |               | subangula<br>subangula  | ir to subround; trace small<br>ir to subround; trace clay; p  | to medium<br>poorly sorte  | pebbles,<br>d; moist.   |                       | not field<br>filtered.<br>(112.0 -<br>122.0')<br>Tight drilling,<br>went back<br>down to clear<br>it out and the   | No drilling fluid<br>used            |
| 115<br><br>116           | 5               |   |  |                      |              |               | (115-119<br>6/4), and l<br>to subrout<br>trace sma<br>poorly sor<br>sediments             | t) Well graded sand (SW);<br>orown (10YR 5/3); very fine<br>nd; trace granules, subangu<br>II to medium pebbles, suba<br>ted; moist; moderate calich<br>and metadiorite pebbles v                                 | ; light yellow<br>e to coarse y<br>ular to subr<br>angular to s<br>he cementa<br>were mediu            | vish brown (10YF<br>grained, subangu<br>ound; trace silt;<br>ubround; trace c<br>tion; cemented<br>m to large in size   | R<br>lar<br>ay;<br>e. | rig overheated.  |                                      |
| 117<br>118<br>119        |                 | 115-119.5<br>8/25/2022<br>16:40             | FW-02B-<br>VAS-117-<br>122<br>(7.8 ppb)<br>8/30/2022             | Alluvium<br>Deposits | SW           |               |   |   |  |   |                       |  |                                      |
| <br>_ 120                |                 |   | 11:14  | Alluvium<br>Deposits | SW-SN        |               |   |   |  |   |                       |  |                                      |
| Abbrev                   | viation         | s: USCS = L                                 | Jnified Soil Cl  | assification         | Syster       | n, ft = $f$   | eet, bgs  | = below ground surfa  | ace, amsl  | = above mea   | n se                  | a level, NR = I  | No Recovery,                         |
| N/A =                    | Not Ap          | oplicable, GV                               | / = groundwa   | ater, ppb =          | parts p      | er billio     | n, Notes  | : Solid blue and hollov   | w blue w   | ater table mai  | ks re                 | present depth  | n to water (ft.                      |
| bgs.) fi                 | irst end        | countered fro                               | om logging an  | d depth to           | water        | neasur        | ed durin  | g the first VAS interva   | al, respec   | tively. Appare  | nt pa                 | rtial recoverie  | s can be the                         |
| result o                 | of pote         | ntial compac                                | tion of sedim  | ents in the          | core b       | ag.           |   |   |  |   |                       |  |                                      |
| L                        |                 | 1   |  |                      | -            | ~             |   |   |  |   |                       |  |                                      |

| 9              | AR               | RCADI   | S  |  | Bo           | pring  | g Lo  | g   |  | SI  | neet: 7 of  | 8  |
|----------------|------------------|---|--|--|--------------|--|---|---|--|---|---|--|
| Date S         | Started          | : 08/20/2                                     | 2022   |  | Surfac       | e Eleva  | ation:  | <u>551.67 ft am</u>   | nsl  | - Borina No.  | : FW-02B  | Pilot  |
| Date C         | Comple           | eted: <u>09/01/2</u>                          | 2022   | I                                      | Northir      | ig (NA   | D83):   | <u>2100637.96</u>   | ;  |   | <u> </u>  |  |
| Drilling       | J Co.:           | <u>Casca</u>                                  | de   | [                                      | Easting      | ) (NAD   | 983):   | <u>7614544.74</u>   |  | Client: <u>PG&amp;E</u>   |   |  |
| Drilling       | Metho            | od: <u>Sonic I</u>                            | Drilling   |  | Total D      | epth:  |   | <u>142 ft bgs</u>   |  | Project: <u>Final (</u>   | GW Remedy P   | hase 2A  |
| Drill Ri       | д Туре           | e: <u>Boart L</u>                             | <u>ongyear drill</u>   | head I                                 | Boreho       | le Dia   | meter:  | <u>4-8 inches</u>   |  | Location: <u>PG&amp;E</u>   | Topock, Need  | lles California                                  |
| Driller        | Name:            | Matt A  | rnold  |  | Depth        | to First   | Water:  | <u>102.0 ft bgs</u>   |  |   |   |  |
| Drilling       | ) Asst:          | <u>LA / IS</u>                                | / DH   | 9                                      | Sampli       | ng Me  | thod:   | <u>4 inch x 10 f</u>  | ft. Core Barrel  | Project Number:   | 30126255  |  |
| Logge          | r:               | <u>J. And</u>                                 | erson / L. Mil   | ando S                                 | Sampli       | ng Inte  | erval:  | Continuous  |  | _   |   |  |
| Editor:        |                  | <u>Sean N</u>                                 | /IcGrane   | (                                      | Conve        | ted to   | Well:   | × Yes   | No   |   |   |  |
| Depth<br>(ft)  | Recovery<br>(ft) | Sieve<br>Sample ID                            | Groundwater<br>Sample ID   | Geologic<br>Formation                  | USCS<br>Code | USCS<br>Class  |   |   | Soil Description   |   | Drilling Notes  | Drilling Fluid                                   |
|                | 5                | FW-02B-SS-<br>119.5-122<br>8/25/2022<br>16:45 |  | Alluvium<br>Deposits                   | SW-SN        |  | (119-12<br>5/3); vei<br>trace cla<br>pebbles                    | 2 ft) Well graded<br>ry fine to coarse g<br>ay, trace granules<br>s, subround; poorl  | sand with silt (SW<br>grained, subangular<br>s, subround; trace s<br>ly sorted; moist to v                         | -SM); brown (10YR<br>r to subround; little silt;<br>mall to medium<br>vet.  |   |  |
| 122            |                  |   |  |  |              |  | •<br>: (122-12  | 4 5 ft) Silty sand  | (SM): dark gravish   | brown $(2.5Y 4/2)$ and  | (122.0')  | (122.0')   |
|                |                  |   |  |  |              |  | reddish   | yellow (7.5YR 7/  | 6); very fine to coar  | se grained, subangular  | Drilling with   | No drilling fluid                                |
|                |                  |   |  | Alluvium                               | SM           |  | subang  | ular; trace clay; p   | oorly sorted; dry to   | moist.  | casing getting  | useu   |
|                |                  | FW-02B-SS-                                    |  | Deposits                               | Sivi         |  | •   |   | 2  |   | tight. Drillers<br>retracked<br>approximately<br>70 feet of drill<br>casing to ream |  |
| 125_           |                  | 122-127.5<br>9/1/2022                         |  |  |              |  | (124.5-   | 126.5 ft) Well gra<br>2 5Y 4/2) and red   | d <mark>ed san</mark> d with silt (<br>ddish vellow (7 5YF   | SW-SM); dark grayish  | the hole to   |  |
|                |                  | 15:30   |  | Alluvium                               |              |  | coarse  | grained, subangu  | lar to subround; litt  | le silt; trace small to   | assist with advancing drill   |  |
| 126_           |                  |   |  | Deposits                               | 500-510      |  | subang<br>modera  | te HCl reaction.  | oorly sorted; dry to   | ce granules, angular to<br>moist; blocky structure;   | casing.   |  |
| 127            | 6.8              |   |  | Alluvium<br>Deposits                   | SM           |  | (126.5-<br>(2.5Y 4/<br>grained<br>subang                        | 127.5 ft) Silty san<br>(2), and reddish y<br>, subangular to si<br>ular to subround;  | d with gravel (SM);<br>ellow (7.5YR 7/6);<br>ubround; some silt;<br>trace granules, sut                            | dark grayish brown<br>very fine to very coarse<br>little small pebbles,<br>pangular to subround;                        |   |  |
| 128            |                  |   |  |  |              |  | trace cla<br>HCl rea  | ay; poorly sorted;<br>ction.  | dry to moist; block  | y structure; moderate   |   |  |
| <br>129<br>130 |                  | FW-02B-SS-<br>127.5-131<br>9/1/2022<br>15:35  | FW-02B-<br>VAS-127-<br>132<br>(36 ppb)<br>8/31/2022              | Alluvium<br>Deposits                   | SW           |  | (127.5-<br>brown (<br>coarse<br>to subrour<br>subrour<br>modera | 131 ft) Well grade<br>2.5Y 4/2), and red<br>grained, subangu<br>bund; trace small<br>nd; trace silt; poor<br>te HCI reaction. | ed sand with gravel<br>ddish yellow (7.5YF<br>ılar to subround; litt<br>to medium pebbles<br>rly sorted; dry to mo | (SW); dark grayish<br>7/6); very fine to very<br>le granules, subangular<br>s, subangular to<br>jist; blocky structure; |   |  |
|                |                  |   | 11:00  |  |              |  | 3   |   |  |   |   |  |
| 131            |                  |   |  |  |              |  | •   |   |  |   |   |  |
|                |                  | FW-02B-SS-<br>131-132                         |  | Alluvium                               | SM           |  | (131-13<br>reddish  | 2 ft) Silty sand (S<br>vellow (7 5YR 7/   | SM); dark grayish br<br>6): verv fine to verv  | own (2.5Y 4/2), and coarse grained  |   |  |
| _132_          |                  | 9/1/2022<br>15:40                             |  | Deposits                               |              |  | subang  | ular to subround;   | some silt; trace sm  | all pebbles,  |   |  |
|                |                  |   |  |  |              | $\begin{vmatrix} \times & \times & \times \\ \times & \times & \times \\ \times & \times & \times \\ \times & \times &$  | dry to m<br>(132-13   | noist; blocky struct<br>5 ft) Sedimentary   | ture; moderate HC<br>Rock - Conglomer  | l reaction.<br>rate; brown (7.5YR 5/4);   | (132.0 -<br>134.5')<br>Poor recovery  | (132.0 -<br>134.5')<br>No drilling fluid         |
|                |                  |   |  | Weathered                              |              |  | fine gra  | ined to medium g  | grained; highly weat   | hered; soft, wet.   |   | used   |
| 5 121          |                  |   |  | Bedrock -<br>Conglomerate              | N/A          |  |   |   |  |   |   |  |
|                |                  |   |  |  |              |  |   |   |  |   |   |  |
| 105            |                  |   |  |  |              | $  \times \times$   |   |   |  |   |   |  |
| 135<br>136     | 7.2              | No Sieve<br>Samples                           | FW-02B-<br>VAS-135-<br>137<br>(Sample<br>results                 |  |              | X X X<br>X X X<br>X X X<br>X X X<br>X X X<br>X X X<br>X X X  | (135-13<br>5/4); fin<br>medium<br>drilling                      | 9.5 ft) Sedimenta<br>e grained to med<br>hard; friable; we<br>process.  | ary Rock - Conglom<br>ium grained; mode<br>et, moisture in pock  | erate; brown (7.5YR<br>rately weathered;<br>ets; pulverized by  | (135.0 -<br>142.0')<br>Rough drilling,<br>drill rig started                         | (135.0 -<br>142.0')<br>No drilling fluid<br>used |
|                |                  | Conecieu                                      | disregraded  |  |              | $  \times \times$   | (135.5-   | 139.5 IT) MOIST to  | ary.   |   | (135.5')  | (135.5')<br>No drillina fluid                    |
| 137<br>        |                  |   | as water not<br>likely<br>representative<br>of aquifer<br>and is | Competent<br>Bedrock -<br>Conglomerate | N/A          | × × × × × × × × × × × × × × × × × × ×  |   |   |  |   | The 6-inch<br>diamter casing<br>stick in the<br>formation. had                      | used   |
|                | 1                |   | considered   |  |              |  |   |   |  |   | to vibe to free   |  |
| 400            |                  |   | not water<br>bearing   |  |              |  |   |   |  |   | approximately   |  |
| 139_           |                  |   | intervaľ)<br>9/1/2022  |  |              |  |   |   |  |   | 118 ft bgs.   |  |
|                |                  |   | 09:22  |  | N/A          |  |   |   |  |   |   |  |
| Abbrev         | viation          | s: USCS = 1                                   | Inified Soil C   | lassification                          | Sveter       | $\frac{1}{1}$ $\frac{1}{2}$ $\frac{1}$ | l<br>feet ha  | s = below are   | ound surface a   | nsl = ahove mean s  | ea level NR =   | No Recovery                                      |
| N/A =          | Not Ar           | oplicable GM                                  | V = groundward   | ater. nph =                            | parts n      | er hillio  | on. Note  | es: Solid hlue  | and hollow hue   | water table marks   | represent denti   | h to water (ft                                   |
| bas)f          | irst en          | countered fro                                 | m logging ar   | nd depth to                            | water i      | measu  | red duri  | ing the first V/  | AS interval res  | ectively Annarent r   | artial recoverie  | s can be the                                     |
| result         | of note          | ential compac                                 | tion of sedim  | ents in the                            | core h       | ad   | .ca aul   |   |  |   |   |  |
| Loonin         | 5, poie          | nua compac                                    | Son or Scull   |  | 5510 0       | -y.  |   |   |  |   |   |  |

| 9              | AR              | CADI                             | S                        |  | Во           | ring        | Log   |   | She               | et: 8 of        | 8               |
|----------------|-----------------|----------------------------------|--------------------------|--|--------------|-------------|---|---|-------------------|-----------------|-----------------|
| Date S         | started:        | 08/20/2                          | 2022                     |  | Surface      | Elevat      | tion: <u>551.67 ft amsl</u>   | Borin   | a No .            | FW_02B          | Pilot           |
| Date C         | Comple          | ted: <u>09/01/</u>               | 2022                     | N                                      | lorthin      | g (NAE      | 083): <u>2100637.96</u>   |   | g 110             | 111-020         |                 |
| Drilling       | Co.:            | Casca                            | de                       | E                                      | Easting      | (NAD8       | 33): <u>7614544.74</u>  | Client:   | PG&E              |                 |                 |
| Drilling       | Metho           | d: <u>Sonic</u>                  | Drilling                 | 1                                      | otal D       | epth:       | <u>142 ft bgs</u>   | Project:  | Final G           | V Remedy Ph     | nase 2A         |
| Drill Ri       | g Type          | : <u>Boart I</u>                 | <u>_ongyear drill</u>    | head E                                 | Boreho       | le Dian     | neter: <u>4-8 inches</u>  | Location:                                       | <u>PG&amp;E 1</u> | opock, Need     | les California  |
| Driller        | Name:           | Matt A                           | rnold                    | [                                      | Depth t      | o First     | Water: 102.0 ft bgs   |   |                   | •               |                 |
| Drilling       | Asst:           | LA / IS                          | / DH                     |  | Samplir      | na Meth     | nod: 4 inch x 10 ft. Core Barrel  | Proiect N                                       | umber: 3          | 30126255        |                 |
|                | r:              | J. And                           | erson / L. Mil           | ando S                                 | Samplir      | ng Inter    | val: Continuous   | ,   | -                 |                 |                 |
| Editor:        |                 | Sean M                           | <b>AcGrane</b>           |  | Conver       | ted to N    | Vell: 🛛 Yes 🗌 No  |   |                   |                 |                 |
|                | >               |                                  |                          | 0 5                                    |              |             |   |   |                   |                 |                 |
| Depth (ft)     | Recover<br>(ft) | Sieve<br>Sample ID               | Groundwater<br>Sample ID | Geologi<br>Formatio                    | USCS<br>Code | Class       | Soil Description  |   |                   | Drilling Notes  | Drilling Fluid  |
| <br>141<br>    | 7.2             | No Sieve<br>Samples<br>Collected |                          | Competent<br>Bedrock -<br>Conglomerate | N/A          | <pre></pre> | (139.5-142 ft) Sedimentary Rock - Congiomerat<br>5/4); fine grained to medium grained; slightly w<br>hard; friable; dry to moist; moisture in pockets; p<br>method. | e; brown (7.5<br>reathered; me<br>pulverized by | drilling          |                 |                 |
| 142            |                 |                                  |                          |  |              | X X X       | End of Boring at 142 ft bas   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| 143<br><br>144 |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| _149_          |                 |                                  |                          |  |              | 9           |   |   |                   |                 |                 |
|                |                 |                                  |                          | •                                      |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          | X                                      | •            |             |   |   |                   |                 |                 |
| <br>153        |                 |                                  |                          | •                                      |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| 155            |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| 156            |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
|                |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| 160            |                 |                                  |                          |  |              |             |   |   |                   |                 |                 |
| Abbre          | viations        | : USCS = l                       | Jnified Soil C           | lassification                          | Systen       | n, ft = f   | eet, bgs = below ground surface, amsl   | = above r                                       | nean sea          | a level, NR = 1 | No Recovery,    |
| N/A =          | Not Ap          | plicable, GV                     | V = groundw              | ater, ppb = p                          | parts p      | er billio   | n, Notes: Solid blue and hollow blue w  | ater table ı                                    | marks re          | present depth   | n to water (ft. |
| bgs.) f        | irst enc        | ountered fro                     | om logging a             | nd depth to                            | water r      | neasur      | ed during the first VAS interval, respec  | tively. App                                     | arent pa          | rtial recoverie | s can be the    |
| iresult (      | of pote         | ntial compac                     | ction of sedim           | nents in the o                         | core ba      | ag.         |   |   |                   |                 |                 |



| ARC   | ADIS   |                    |                          | Temporary   | Backfill Log   | Sheet: 2 of 8                            |   |  |
|---|--|--------------------|--------------------------|---|--|--|---|--|
| Date Started:<br>Date Completed:<br>Drilling Co.:<br>Drilling Method:<br>Driller Name:<br>Drilling Asst:<br>Logger:   | 09/01/2022<br>09/07/2022<br>Cascade<br>Sonic Drilling<br>Matt Arnold<br>LA / IS / DH<br>L. Milando / / | A. Terry           |                          | <ul> <li>Surface Elevation:</li> <li>Northing (NAD83):</li> <li>Easting (NAD83):</li> <li>Total Depth:</li> <li>Borehole Diameter:</li> <li>Depth to First Water Editor:</li> </ul> | 551.67 ft amsl         2100637.96         7614544.74         142 ft bgs         4-8 inches         102.0 ft bgs         Sean McGrane |  | W-02B Pilot   |  |
| ta en contraction (t)   | Geologic<br>Formation  | USCS<br>Code       | USCS<br>Class            | Cons  | truction Details   | Calculated<br>Material Volumes           | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |  |
| 21         21         22         23         23         23         23         23         23         23         24         25         26         27         28         29         28         29         30         Groundwatel         Samples         Collected         31         32         33         34         35         36         37         38         38 | Fluvial<br>Deposits<br>Fluvial<br>Deposits<br>Alluvium<br>Deposits                                     | sw<br>sw           |                          | (4.0 - 39.0')<br>Cemex #2/12<br>(12x20) Lapis Lustre<br>Sand  |  | (4.0 - 39.0')<br>15 bags                 | (4.0 - 39.0') 13.5 bags (90%)<br>Note: Backfill sand  |  |
| 40  | Alluvium   | SW                 |                          | (39.0 - 131.0')<br>Cemex #1/20<br>(20x40) Lapis Lustre<br>Sand  |  | (39.0 - 131.0')<br>36.1 bags             | (39.0 - 131.0') 42 bags (116%)<br>Note: Backfill sand   |  |
| Abbreviations: U<br>N/A = Not Applica   | SCS = Unified<br>able, GW = gr   | Soil C             | lassificati<br>ater, ppb | on System, ft = feet, bg<br>= parts per billion, No   | gs = below ground surface, a<br>tes: Solid blue and hollow blu   | msl = above mean<br>le water table marks | sea level, NR = No Recovery,<br>s represent depth to water (ft.                                   |  |
| bgs.) first encoun<br>during overdrilling   | tered from log<br>of the pilot bo  | ging ar<br>prehole | nd depth                 | to water measured du  | ring the first VAS interval, res   | pectively. Granular l                    | backfill material was removed   |  |

| 9                     | ARC                                       | ADIS  |                                     |               | Temporary I  | Backfill Log                     | Sheet: 3 of 8                  |  |  |
|-----------------------|---|---|-------------------------------------|---------------|--|----------------------------------|--------------------------------|--|--|
| Date S                | Started:                                  | 09/01/2022  |                                     |               | _ Surface Elevation:   | <u>551.67 ft amsl</u>            |                                | W-02R Pilot  |  |
| Date C                | Completed:                                | 09/07/2022  |                                     |               | _ Northing (NAD83):  | 2100637.96                       |                                |  |  |
| Drilling              | Co.:                                      | Cascade   |                                     |               | Easting (NAD83):   | 7614544.74                       | Client: PG&I                   | =  |  |
| Drilling              | Method:                                   | Sonic Drilling  | 1                                   |               | Total Depth:   | 142 ft bgs                       | Project: Final                 | GW Remedy Phase 2A   |  |
| Driller               | ,<br>Name:                                | Matt Arnold   |                                     |               | Borehole Diameter:   | 4-8 inches                       | Location: PG&I                 | E Topock, Needles California                                     |  |
| <sub>∾</sub> Drilling | Asst:                                     | LA / IS / DH  |                                     |               | Depth to First Water:  |                                  |                                | •  |  |
|                       | ,<br>er:                                  | L. Milando /  | A. Terry                            | /             | Editor:  | Sean McGrane                     | Project Number                 | : <u>30126255</u>  |  |
|                       |   | in i  |                                     |               | Const  | ruction Details                  |                                |  |  |
| Depth (ft)            | Groundwate<br>Sample ID                   | Geolog<br>Formati   | USCS<br>Code                        | USCS<br>Class | I  | · · · · · · ·                    | Calculated<br>Material Volumes | Note: percentages are the actual volume vs the calculated volume |  |
|                       | No<br>Groundwater<br>Samples<br>Collected | Alluvium         Deposits         Alluvium         Deposits | SW-SM<br>SW-SM<br>SW-SM<br>SW<br>SW |               | (39.0 - 131.0')<br>Cemex #1/20<br>(20x40) Lapis Lustre<br>Sand |                                  | (39.0 - 131.0')<br>36.1 bags   | (39.0 - 131.0') 42 bags (116%)<br>Note: Backfill sand            |  |
|                       | 1   |   |                                     |               |  |                                  |                                |  |  |
| Abbre                 | viations: US                              | SCS = Unified   | Soil C                              | lassificat    | on System, ft = feet, ba                                       | s = below ground surface, an     | nsl = above mean               | sea level, NR = No Recoverv.                                     |  |
| ₹<br>N/A =            | Not Applica                               | ble, GW = gr  | oundwa                              | ater, ppb     | = parts per billion, Not                                       | es: Solid blue and hollow blue   | water table marks              | s represent depth to water (ft.                                  |  |
| bgs.) f               | irst encount                              | ered from loc   | ging ar                             | nd depth      | to water measured dur  | ing the first VAS interval, resp | ectively. Granular I           | backfill material was removed                                    |  |
| durina                | overdrillina                              | of the pilot be   | orehole                             |               |  |                                  |                                |  |  |
| 3                     | 3   |   |                                     |               |  |                                  |                                |  |  |







| 9   | ARC   | ADIS   |              |  | Temporary I   | Backfill Log   | Sheet: 7 of 8                              |   |  |
|---|---|--|--------------|--|---|--|--|---|--|
| Date S<br>Date C<br>Drilling<br>Drilling<br>Driller         | Started:<br>Completed:<br>g Co.:<br>g Method:<br>Name:  | 09/01/2022<br>09/07/2022<br>Cascade<br>Sonic Drilling<br>Matt Arnold | g            |  | <ul> <li>Surface Elevation:</li> <li>Northing (NAD83):</li> <li>Easting (NAD83):</li> <li>Total Depth:</li> <li>Borehole Diameter:</li> </ul> | 551.67 ft amsl<br>2100637.96<br>7614544.74<br>142 ft bgs<br>4-8 inches | Client: PG&I Project: Final Location: PG&I | W-02B Pilot<br>E<br>GW Remedy Phase 2A<br>E Topock, Needles California                            |  |
| Drilling  | g Asst:<br>er:  | LA / IS / DH<br>L. Milando /   | A. Terry     | /  | _ Depth to First Water:<br>Editor:  | <u>102.0 ft bgs</u><br>Sean McGrane                                    | Proiect Number                             | : 30126255  |  |
| Depth (ft)  | Groundwate<br>Sample ID   | Geologic<br>Formation  | USCS<br>Code | USCS<br>Class  | Const   | ruction Details  | Calculated<br>Material Volumes             | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |  |
| 121   | -   | Alluvium<br>Deposits   | SW-SM        |  |   |  |  |   |  |
| 123_<br>123_<br>123_<br>124_                                | -   | Alluvium<br>Deposits   | SM           |  |   |  | 2  |   |  |
|   | -   | Alluvium<br>Deposits   | SW-SM        |  | (39.0 - 131.0')<br>Cemex #1/20<br>(20x40) Lapis Lustre<br>Sand  |  | (39.0 - 131.0')<br>36.1 bags               | (39.0 - 131.0') 42 bags (116%)<br>Note: Backfill sand   |  |
|   |   | Alluvium<br>Deposits   | SM           |  |   |  |  |   |  |
| 128_<br>128_<br>129_<br>129_<br>129_<br>130_<br>130_<br>121 | - FW-02B-<br>VAS-127-132<br>- (36 ppb)<br>8/31/2022<br>- 11:00  | Alluvium<br>Deposits   | SW           |  |   |  |  |   |  |
|   | -   | Alluvium<br>Deposits   | SM           |  |   |  |  |   |  |
|   |   | Weathered<br>Bedrock -<br>Conglomerat                                | N/A<br>e     | × × × × × × × × × × × × × × × × × × ×  |   |  |  |   |  |
|   | FW-02B-<br>VAS-135-137<br>(Sample<br>results<br>disregraded<br>as water not<br>likely<br>representative<br>of aquifer and | Competent<br>Bedrock -   | N/A          | × × × × × × × × × × × × × × × × × × ×  | (131.0 - 142.0')<br>Cemex #8 (4x16)<br>Mesh Lapis Lustre<br>Sand  | <ul> <li> <ul> <li></li></ul></li></ul>                                | (131.0 - 142.0')<br>2.9 bags               | (131.0 - 142.0') 3.0 bags (103%)<br>Note: Indicator sand  |  |
|   | is considered<br>not water<br>bearing<br>interval)<br>9/1/2022<br>09:22   | Conglomerat  | e            | × × × × × × × × × × × × × × × × × × ×  |   |  |  |   |  |
| 140<br>Abbre  | viations <sup>.</sup> 119   | <br>CS = Unified   | N/A          | $  \stackrel{\scriptstyle \times}{\times} \stackrel{\scriptstyle \times}{\times} \stackrel{\scriptstyle \times}{\times}  $ | on System ft = feet bo  | s = below around surface or  | msl = ahove mean                           | sea level NR = No Recovery  |  |
| N/A =   | Not Applica   | ble, $GW = gi$   | roundwa      | ater, ppb  | = parts per billion, Not  | es: Solid blue and hollow blu  | e water table marks                        | s represent depth to water (ft.   |  |
| bgs.) f   | irst encount  | ered from log  | gging ar     | nd depth   | to water measured dur   | ing the first VAS interval, resp                                       | pectively. Granular l                      | backfill material was removed   |  |
| during  | overdrilling  | of the pilot b   | orehole      |  |   |  |  |   |  |

|                           | 9                  | ARC/                    | ٩DIS                                   |                     |                                       | Temporary  | Backfill Log                    |                              | S          | heet: 8 of 8  |
|---------------------------|--------------------|-------------------------|--|---------------------|---------------------------------------|--|---------------------------------|------------------------------|------------|---|
|                           | Date S             | tarted:                 | 09/01/2022                             |                     |                                       | _ Surface Elevation:   | 551.67 ft amsl                  | - Well                       | ID: F      | W-02B Pilot   |
|                           | Date C<br>Drilling | ompletea:               | <u>09/07/2022</u><br>Cascade           |                     |                                       | Νοπηίης (NAD83):<br>Fasting (NAD83):                             | 2100637.96<br>7614544 74        | <br>Client:                  | PG&F       | =   |
|                           | Drilling           | Method:                 | Sonic Drilling                         |                     |                                       | Total Depth:   | 142 ft bgs                      | Project:                     | Final      | -<br>GW Remedy Phase 2A   |
|                           | Driller I          | Name:                   | Matt Arnold                            |                     |                                       | Borehole Diameter:   | 4-8 inches                      | Location:                    | PG&E       | E Topock, Needles California  |
| 2/22                      | Drilling           | Asst:                   | <u>LA / IS / DH</u>                    |                     |                                       | _ Depth to First Water   | : <u>102.0 ft bgs</u>           |                              |            |   |
| T 10/12                   | Loggei             | r:                      | L. Milando /                           | A. Terry            | /<br>                                 | Editor:  | Sean McGrane                    | Project N                    | lumber     | : <u>30126255</u>   |
| TA TEMPLATE.GD            | Depth<br>(ft)      | Groundwate<br>Sample ID | L<br>Geologic<br>Formation             | USCS<br>Code        | USCS<br>Class                         | Const  | ruction Details                 | Calculate<br>Material Vol    | ed<br>umes | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |
| NT PROJECT.GPJ GINT DAT   | <br>141<br><br>142 |                         | Competent<br>Bedrock -<br>Conglomerati | N/A                 | × × × × × × × × × × × × × × × × × × × | (131.0 - 142.0')<br>Cemex #8 (4x16)<br>Mesh Lapis Lustre<br>Sand |                                 | (131.0 - 142.0')<br>2.9 bags |            | (131.0 - 142.0') 3.0 bags (103%)<br>Note: Indicator sand  |
| IT FILES\38 2022-10-12\GI | <br>143            |                         |  |                     |                                       |  |                                 | 2                            |            |   |
| HASE 2 GI                 | 144<br>            |                         |  |                     |                                       |  |                                 |                              |            |   |
| SV00 NEW F                | 145                |                         |  |                     |                                       |  |                                 |                              |            |   |
| 02 GINT FILE              | 146                |                         |  |                     |                                       |  |                                 |                              |            |   |
| IENTATION(                | <br>147            |                         |  |                     |                                       |  |                                 |                              |            |   |
| IELD DOCUN                | <br>148            |                         |  |                     |                                       |  |                                 |                              |            |   |
| ILLING\06_FI              |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| PHASE II DR               | <br>150            |                         |  |                     |                                       |  | •                               |                              |            |   |
| OCUMENTS/                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| SHARED DO                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| <b>UCTION</b>             | 152                |                         |  |                     | X                                     |  |                                 |                              |            |   |
| OCKCONSTR                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| MSVPGETOP                 | <br>154            |                         |  |                     |                                       |  |                                 |                              |            |   |
| WROOT/TE/                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| @SSL\DAVW                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| POINT.COM                 | <br>157            |                         |  |                     |                                       |  |                                 |                              |            |   |
| 365.SHAREF                | <br>158            |                         |  |                     |                                       |  |                                 |                              |            |   |
| \\ARCADISC                |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| NMENT LOG                 |                    |                         |  |                     |                                       |  |                                 |                              |            |   |
| <b>3ANDON</b>             | Abbre              | /iations: US            | SCS = Unified                          | I Soil Cl           | assificat                             | ion System, ft = feet, bg  | gs = below ground surface, a    | msl = above                  | mean s     | sea level, NR = No Recovery,  |
| TEMP AL                   | N/A =              | Not Applica             | ble, GW = gr                           | oundwa              | ater, ppb                             | = parts per billion, Not   | tes: Solid blue and hollow blu  | e water table                | marks      | represent depth to water (ft.   |
| POCK .                    | pgs.) fi<br>durina | rst encount             | of the pilot b                         | iging an<br>orehole | ia depth                              | to water measured dur  | ing the first VAS interval, res | pectively. Gra               | anular k   | backtill material was removed   |



| 9         | ARC                          | 4[         | DIS            |                        | Drilling Log  |                                 |                | Shee           | et: 2    | of 8   |  |  |  |
|-----------|------------------------------|------------|----------------|------------------------|---|---------------------------------|----------------|----------------|----------|--|--|--|--|
| Date S    | Started:                     | 10/        | 12/202         | 22                     | Surface Elevation:  | 551.67 ft amsl                  | Borin          |                | FW/      | _02B   |  |  |  |
| Date C    | Completed:                   | 10/2       | 22/202         | 22                     | Northing (NAD83):   | 2100637.96                      | BOLILI         | y No           |          | -020   |  |  |  |
| Drilling  | Co.:                         | Cas        | scade          |                        | Easting (NAD83):  | 7614544.74                      | Client:        | PG&E           |          |  |  |  |  |
| Drilling  | Method:                      | Dua        | al Rota        | rv                     | Total Depth:  | 142.1 ft bas                    | Project:       | Final G        | W Rer    | medv Phase 2A                                |  |  |  |
| Drill Ri  | ia Type:                     | For        | emost          | DR 24H                 | ID Conductor Casing Diameter:   | 24 inches                       | Location.      | PG&F           | Торос    | k. Needles                                   |  |  |  |
| Driller   | Name <sup>.</sup>            |            | h Sald         | ana                    | Drill Casing Diameter   | 22 inches                       | Loodion        | Californ       | ia       | · · · · ·                                    |  |  |  |
| Drilling  | Acet:                        | 1 0        | :////          |                        |   | 22" & 20" Tricopo               | Droject Nu     | umbor: 3       | 01261    | 255  |  |  |  |
|           | y Assi.<br>Juchar            | <u>L.O</u> | <u>. / A.A</u> | <u>. / D.A.</u><br>mon | Dim Bit.  |                                 | појести        | <u>1110er.</u> | 01202    |  |  |  |  |
|           |                              |            | n Dod          | nor                    | Deptilito First Water.  |                                 |                |                |          |  |  |  |  |
| Ng Ge     |                              |            | II Neu         |                        |   |                                 |                |                |          |  |  |  |  |
| Depth     | Drilling Run<br>and Averag   | (ft)<br>e  | USCS           | USCS                   | Description   | Drilling notes and observation  | ons confirmin  | g presence     | of       | Drilling Fluid                               |  |  |  |
| (11)      | Penetration F                | late       | Code           |                        | full geologic descriptions)   |                                 |                |                |          |  |  |  |  |
|           | (0.0 - 19.6)<br>1.28 mins/ft |            |                |                        | .(17-28.5 ft) Well graded sand with gravel (SW);<br>brown (10YR 5/3). |                                 |                |                |          |  |  |  |  |
| 20        |                              |            |                |                        | (17.5-19.5 ft) Increase in the percentage of                          | (19.6 - 39.6') Normal drilling  | 19-31' bgs, ro | ugh drilling   | 1        | (19.6 - 39.6')                               |  |  |  |
|           |                              |            |                |                        | coarser grained sediments.  | 31-39' bgs approximately.       |                |                |          | 450 gallons of water<br>used; 450 gallons of |  |  |  |
|           | -                            |            |                |                        |   |                                 |                |                |          | water recovered; 0                           |  |  |  |
| 21        |                              |            |                |                        |   |                                 |                |                |          | galions of water lost                        |  |  |  |
|           | -                            |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 22        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 23        |                              |            |                | ۶.S.Ş                  |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           | -                            |            | S///           |                        |   |                                 |                |                |          |  |  |  |  |
| 24        |                              |            | 300            |                        | (24 ft) Increase in the percentage of coarser                         |                                 |                |                |          |  |  |  |  |
|           | -                            |            |                |                        | grained sediment and granules with depth.                             |                                 |                |                |          |  |  |  |  |
| 25        |                              |            |                | i a Di                 | Lower percentage of silt percentage with depth.                       |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   | (25.0') Observed trace amount   | nts of Cemex   | #2/12 (12x     | 30)      |  |  |  |  |
|           | -                            |            |                |                        |   |                                 | ungs.          |                |          |  |  |  |  |
| 26        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 27        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 28        |                              |            |                | P.a. D.                |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                | ૢ૽૽ઌ૽૽૽ૡ               |   |                                 |                |                |          |  |  |  |  |
|           | (19.6 - 39.6)                |            |                |                        | (28.5-31 ft) Well graded sand with gravel (SW);                       |                                 |                |                |          |  |  |  |  |
| 29        | 2.00 mins/ft                 |            |                |                        | light gray (10YR 7/2).  |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| _30_      |                              |            | SW             |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 31        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           | 1                            |            |                |                        | (31-37 ft) Well graded sand with gravel (SW);                         |                                 |                |                |          |  |  |  |  |
|           | 1                            |            |                |                        | ngn yray (101 A 1/2).   |                                 |                |                |          |  |  |  |  |
| 32        | 1                            |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| i         |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 33        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 34        |                              |            | <b>C</b> 111   | ڹٝؖۿؚ؞ؘٛڰ              |   |                                 |                |                |          |  |  |  |  |
|           |                              |            | SW             |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| 35        | -                            |            |                |                        |   | (35.0') Observed trace amount   | nts of Cemer   | #2/12 (12*     | 30)      |  |  |  |  |
|           | -                            |            |                |                        |   | Lapis Lustre Sand in drill cutt | tings.         |                | ,        |  |  |  |  |
| 36        |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           |                              |            |                |                        |   |                                 |                |                |          |  |  |  |  |
|           | 1                            |            |                |                        |   |                                 |                |                |          |  |  |  |  |
| <u>3/</u> | 1                            |            |                |                        | (37-39.5 ft) Well graded sand with silt (SW-SM)                       | ;                               |                |                |          |  |  |  |  |
|           |                              |            | SW-SM          |                        | light gray (10YR 7/2).  |                                 |                |                |          |  |  |  |  |
| 38        | <u> </u>                     |            |                |                        |   |                                 |                |                |          | 014  |  |  |  |
| Abbre     | viations: US                 | SUS        |                | iea Soil               | Classification System, ft = feet, bgs = l                             | below ground surface, ams       | i = above n    | nean sea       | i ievel, |  |  |  |  |
| ground    | awater, Not                  | es: S      | solid bl       | ue wate                | r table mark represents depth to water                                | (π. bgs.) depth to water me     | easured du     | iring colle    | ection   | of the first VAS                             |  |  |  |
| Interva   | al in the pilot              | bor        | ehole.         |                        |   |                                 |                |                |          |  |  |  |  |

| 9           | ARC/                           | DIS                      |                    | Drilling Log  | Drilling Log                   |                                      |                          |  |
|-------------|--------------------------------|--------------------------|--------------------|---|--------------------------------|--------------------------------------|--------------------------|--|
| Date S      | Started:                       | 10/12/202                | 22                 | Surface Elevation:  | 551.67 ft amsl                 | Boring                               |                          | 1028   |
| Date C      | Completed:                     | 10/22/202                | 22                 | Northing (NAD83):   | 2100637.96                     | DOLIN                                | J NO <u>Fv</u>           | <u>-02D</u>                                  |
| Drilling    |                                | Cascade                  |                    | Easting (NAD83)   | 7614544 74                     | Client <sup>.</sup>                  | PG&F                     |  |
| Drilling    | Method:                        | Dual Rota                | arv                | Total Depth:  | 142 1 ft bas                   | Project <sup>.</sup>                 | Final GW Re              | emedy Phase 2A                               |
| Drill Ri    | a Type                         | Foremost                 |                    |   | 21 inches                      | Location.                            | PG&F Topo                | ck Needles                                   |
| Drillor     | Name:                          | loch Sald                | lana               | Drill Casing Diameter:  | 22 inches                      | Looadon.                             | California               |  |
| Drilling    |                                |                          |                    |   | 22" 8 20" Tricopo              | Droject Nu                           | mbor: 20126              | 2055   |
|             |                                | L.G. / A.A<br>Arnold I.o | . / D.A.           | DIII DII.   |                                | FIUJECINU                            | $\frac{50120}{2}$        | 1255   |
|             |                                | Allion Dod               | nor                | Depth to First Water.   |                                |                                      |                          |  |
| Ng Ge       |                                |                          |                    |   |                                |                                      |                          |  |
| Depth       | Drilling Run (1<br>and Average | t) USCS                  | USCS<br>Class      | Description (See Pilot boring log for   | Drilling notes and observati   | ons confirming<br>aterial in drill c | g presence of<br>uttings | Drilling Fluid                               |
| ( )         | Penetration Ra                 | ite                      |                    | full geologic descriptions)   |                                |                                      | 5                        |  |
|             |                                |                          |                    | (37-39.5 ft) Well graded sand with silt (SW-SM)   | ;                              |                                      |                          |  |
|             | (19.6 - 39.6)                  | SW-SM                    |                    |   |                                |                                      |                          |  |
| 39          | 2.00 mins/ft                   |                          |                    |   |                                |                                      |                          |  |
|             |                                | ┨ ╞────                  |                    | (39.5-46.5 ft) Well graded sand with gravel   | (20.6                          | 52' normal d                         | rilling E2 E0' has       | (20.6 50.6!)                                 |
| 40          |                                |                          |                    | (SW); light brownish gray (10YR 6/2), and light   | approximately.                 | -53, normai di                       | rilling 53-59 bgs        | (39.6 - 59.6)<br>750 gallons of water        |
|             |                                |                          |                    | gray (10 PR 7/1).   |                                |                                      |                          | used; 600 gallons of<br>water recovered: 150 |
| 41          |                                |                          | ڹٞ؋۫ؠ۫ڹڹٛ؋         |   |                                |                                      |                          | gallons of water lost                        |
| 4           |                                |                          |                    | •   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| ≝42         |                                |                          |                    |   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 43          |                                | SW                       |                    |   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 44          |                                |                          |                    |   |                                |                                      |                          |  |
| N DE        |                                |                          |                    |   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 45          |                                |                          | Ď                  |   | (45.0') Observed trace amou    | nts of Cemex                         | #1/20 (20x40)            | -  |
|             |                                |                          |                    |   | Lapis Lustre Sand in drill cut | tings.                               |                          |  |
| 46          |                                |                          |                    |   |                                |                                      |                          |  |
|             |                                |                          |                    |   | _                              |                                      |                          |  |
| 47_         |                                | SW-SM                    |                    | (46.5-47.5 ft) well graged sand with slit<br>(SW-SM); light gray (10YR 7/1).                    |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 48          |                                |                          |                    | (47.5-49 ft) Well graded sand with silt and grave<br>(SW-SM): pale grange vellow (10VR 8/2) and | el                             |                                      |                          |  |
| +0          | (39.6 - 59.6)                  | SW-SM                    |                    | light gray (10YR 7/1).  |                                |                                      |                          |  |
|             | 2.95 mins/ft                   |                          |                    |   |                                |                                      |                          |  |
| 49          |                                |                          |                    | (49-50.5 ft) Well graded sand with silt and grave   |                                |                                      |                          |  |
|             |                                |                          |                    | (SW-SM); pale orange yellow (10YR 8/2), and   |                                |                                      |                          |  |
| 50          |                                | SW-SM                    |                    | (49-50.5 ft) Decrease in silt to approximately 1%   |                                |                                      |                          |  |
|             |                                |                          |                    | silt, and increase the amount moderate caliche cementation.                                     |                                |                                      |                          |  |
| 51_         |                                |                          |                    | (50.5-57 ft) Well graded sand with gravel (SW);   |                                |                                      |                          |  |
|             |                                |                          |                    | lignt gray (10YR 7/2).  |                                |                                      |                          |  |
|             | 1                              |                          |                    |   |                                |                                      |                          |  |
| ≦ <b>⊃∠</b> |                                |                          |                    | •   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 53          |                                |                          |                    |   |                                |                                      |                          |  |
|             |                                |                          |                    |   |                                |                                      |                          |  |
| 54          |                                | SW                       |                    |   |                                |                                      |                          |  |
|             |                                |                          | ٳ۫؞ؚڹٞڲ <u></u> ۥ؋ |   |                                |                                      |                          |  |
|             | 1                              |                          |                    |   |                                |                                      |                          |  |
| 55          |                                |                          |                    |   | (55.0') Observed trace amou    | nts of Cemex                         | #1/20 (20x40)            |  |
|             |                                |                          |                    |   | Lapis Lustre Sand in drill cut | tings.                               |                          |  |
| 56          |                                |                          |                    |   |                                |                                      |                          |  |
|             |                                |                          | [ A D              |   |                                |                                      |                          |  |
| 57          |                                |                          |                    |   |                                |                                      |                          |  |
| Abbre       | viations: US                   | CS = Unil                | fied Soil          | Classification System, ft = feet, bgs = b   | pelow ground surface, ams      | sl = above n                         | nean sea leve            | l, GW =                                      |
| ground      | dwater, Note                   | s: Solid b               | lue wate           | r table mark represents depth to water  | (ft. bgs.) depth to water m    | easured du                           | ring collectior          | n of the first VAS                           |
| interva     | I in the pilot                 | borehole.                |                    |   |                                |                                      |                          |  |

| 9             | ARCA   | DIS            |               | Drilling Log  |                 |  |                                      | She                        | et: 4       | of 8                                       |
|---------------|--|----------------|---------------|---|-----------------|--|--------------------------------------|----------------------------|-------------|--|
| Date S        | Started: <u>1</u>                                  | 0/12/202       | 22            | Surface Elevation:  | <u>551.67 f</u> | ft amsl  | Borine                               | n No ·                     | FW          | _02R                                       |
| Date C        | Completed: <u>1</u>                                | 0/22/202       | 22            | Northing (NAD83):   | 2100637         | 7.96   | Douni                                | y NO                       |             | -020                                       |
| Drilling      | Co.: 0   | Cascade        |               | Easting (NAD83):  | 7614544         | 4.74   | Client:                              | PG&E                       |             |  |
| Drilling      | Method: <u>[</u>                                   | Dual Rota      | ary           | Total Depth:  | <u>142.1 ft</u> | bgs  | Project:                             | <u>Final G</u>             | W Re        | medy Phase 2A                              |
| Drill Ri      | g Type: F  | oremost        | DR 24         | HD Conductor Casing Diameter:   | 24 inche        | es   | Location:                            | PG&E                       | Торос       | k, Needles                                 |
| Driller       | Name: <u>J</u>                                     | osh Sald       | lana          | Drill Casing Diameter:  | 22 inche        | es   |                                      | Califorr                   | nia         |  |
| Drilling      | Asst: L  | G. / A.A       | . / D.A.      | Drill Bit:  | 23" & 20        | )" Tricone   | Project Nu                           | umber: 3                   | 301262      | 255  |
| Tool-P        | usher: A   | Arnold La      | mon           | Depth to First Water:   | 92.0 ft b       | ds   | . <b>,</b>                           | -                          |             |  |
| Rig Ge        | eologist: E  | Ellen Red      | ner           | Converted to Well:  | × Yes           | <br>No   |                                      |                            |             |  |
|               |  |                |               | Description   |                 |  |                                      |                            |             |  |
| Depth<br>(ft) | Drilling Run (ft<br>and Average<br>Penetration Rat | ) USCS<br>code | USCS<br>Class | (See Pilot boring log for full geologic descriptions)                   | Drillir         | ng notes and observati<br>temporary backfill ma                          | ons confirming<br>aterial in drill c | g presence<br>uttings      | e of        | Drilling Fluid                             |
|               |  | SW             |               | (57-57.5 ft) Well graded sand with gravel (SW);                         |                 |  |                                      |                            |             |  |
| <br>59        |  |                |               | (57.5-62.5 ft) Well graded sand with silt and                           | 11              |  |                                      |                            |             |  |
| JO            | (39.6 - 59.6)                                      |                |               | gravel (SW-SM); brown (10YR 5/3).                                       |                 |  |                                      |                            |             |  |
| <u> </u>      | 2.95 mins/ft                                       |                |               | >   |                 |  |                                      |                            |             |  |
| 59            |  |                |               | >   |                 |  |                                      |                            |             |  |
|               |  |                |               |   | (70.0           |  |                                      |                            |             |  |
| _60_          |  | SW-SM          |               | (60.62.5.ft) Decrease in fine content                                   | (59.6 -         | <ul> <li>/9.1') Normal drilling,<br/>hard drilling but appear</li> </ul> | driller states                       | that it has<br>a little sk | not<br>ower | (59.6 - 79.1')<br>1200 gallons of water    |
| i –           |  |                |               |   | usual.          | g zat upped  |                                      | ,                          |             | used; 1100 gallons of water recovered: 100 |
| 61            |  |                |               | >   | (59.6 -         | - 60.7') The 24-inch dia   | ameter casing                        | was adva                   | nced        | gallons of water lost                      |
|               |  |                |               | ><br>>  | by pus          | shing the casing withou  | ut advancing o                       | Irill string a             | and         |  |
| 62            |  |                |               | ><br>>  | the cu          | ttings below 59.6 ft we  | ere removed b                        | y drilling w               | ith the     |  |
| 02            |  |                |               | -<br>   |                 | n diamiter drin casing.  |                                      |                            |             |  |
|               |  |                |               | (62.5-65 ft) Well graded sand with gravel (SW);                         |                 |  |                                      |                            |             |  |
| 63            |  |                |               | light brownish gray (10YR 6/2).   |                 |  |                                      |                            |             |  |
|               |  | SW/            |               |   |                 |  |                                      |                            |             |  |
| 64            |  | 500            |               |   |                 |  |                                      |                            |             |  |
|               |  |                |               | *   |                 |  |                                      |                            |             |  |
| 65            |  |                |               |   | (65.0')         | Observed trace amou  | nts of Comov                         | #1/20 (20~                 | (40)        |  |
|               |  |                | $\backslash$  |   | Lapis I         | Lustre Sand in drill cut   | tings.                               | #1/20 (20)                 | -0)         |  |
| 66            |  | NR             | $  \rangle$   |   |                 |  |                                      |                            |             |  |
|               |  |                |               |   |                 |  |                                      |                            |             |  |
| 67            |  |                |               |   |                 |  |                                      |                            |             |  |
|               |  | 014/           |               | (67-68 ft) Well graded sand with gravel (SW);                           |                 |  |                                      |                            |             |  |
| 68            | (59.6 - 79.1)                                      | 500            |               | ,                                 |                 |  |                                      |                            |             |  |
| 00            | 0.00 mins/it                                       |                |               | (68-71 ft) Well graded sand with gravel (SW);                           | 11              |  |                                      |                            |             |  |
|               |  |                | 8.0.8         | ןוויטווג yiay ( ויטדיד //∠).<br>א                                       |                 |  |                                      |                            |             |  |
| <u>ра_</u>    |  |                |               | >   |                 |  |                                      |                            |             |  |
|               |  | SW             |               | 2<br>2<br>8   |                 |  |                                      |                            |             |  |
| 70            |  |                |               | •<br>•  |                 |  |                                      |                            |             |  |
|               |  |                |               | >   |                 |  |                                      |                            |             |  |
| _71_          |  |                |               | (71-74 5 ft) Silty sand (SM): light gray (10VP)                         |                 |  |                                      |                            |             |  |
|               |  |                |               | 7/2).   |                 |  |                                      |                            |             |  |
| _72_          |  |                |               |   |                 |  |                                      |                            |             |  |
|               |  |                |               | (//2-/4.5 ft) Decrease in silt, granules and pebbles, increase in sand. |                 |  |                                      |                            |             |  |
| 73            |  | SM             |               | }   |                 |  |                                      |                            |             |  |
|               |  |                |               | 4   |                 |  |                                      |                            |             |  |
|               |  |                |               |   |                 |  |                                      |                            |             |  |
|               |  |                |               |   |                 |  |                                      |                            |             |  |
|               |  |                |               | (74.5-77.5 ft) Well graded sand with gravel                             |                 |  |                                      |                            |             |  |
| 75            |  | C/W            | 8.00          | (SW); yellowish brown (10YR 5/4).                                       | (75.0')         | Observed trace amou  | nts of Cemex                         | #1/20 (20x                 | 40)         |  |
|               |  | 300            |               | -<br>   | Lapis           | Lustre Sand in drill cut   | tings.                               | 1                          | <i>`</i>    |  |
|               |  |                |               |   |                 | ······   | 11                                   |                            |             | 014  |
| Abbrev        | viations: USC                                      | JS = Unif      | ned Soil      | Classification System, tt = teet, bgs = t                               | elow gro        | ound surface, ams  | a = above n                          | iean sea                   | a level,    |  |
| ground        | Jwater, Notes                                      | 5. Solid bl    | iue wate      | er lable mark represents depth to water                                 | (π. bgs.)       | ueptn to water m   | easured du                           | ring colle                 | ection      |  |
| interva       | ii in me pilot b                                   | orenole.       |               |   |                 |  |                                      |                            |             |  |

| 9             | ARC                          | ADIS        | 5              | Drilling Log  |              |                  |  |                                       | Shee                  | et: 5  | 5 of 8                  |
|---------------|------------------------------|-------------|----------------|---|--------------|------------------|--|---------------------------------------|-----------------------|--------|-------------------------|
| Date S        | Started:                     | 10/12/20    | 22             | Surface Elevation:  | 551.         | .67 ft           | amsl   | Boring                                | n No ·                | FW     | -02B                    |
| Date C        | Completed:                   | 10/22/20    | 22             | Northing (NAD83):   | 2100         | 0637             | .96  | Bound                                 | ,                     |        |                         |
| Drilling      | g Co.:                       | Cascade     |                | Easting (NAD83):  | 7614         | 4544             | .74  | Client:                               | PG&E                  |        |                         |
| Drilling      | g Method:                    | Dual Rota   | ary            | Total Depth:  | 142.         | 1 ft b           | ogs  | Project:                              | Final G               | N Re   | medy Phase 2A           |
| Drill Ri      | ig Type:                     | Foremos     | t DR 24H       | <u>ID</u> Conductor Casing Diameter:  | 24 ir        | nches            | 8  | Location:                             | <u>PG&amp;E 1</u>     | Горос  | k, Needles              |
| Driller       | Name:                        | Josh Sale   | dana           | Drill Casing Diameter:  | <u>22 ir</u> | nches            | 3  |                                       | Californ              | ia     |                         |
| Drilling      | g Asst:                      | L.G. / A.A  | A. / D.A.      | Drill Bit:  | 23" (        | <u>&amp; 20'</u> | ' Tricone                                      | Project Nu                            | mber: 3               | 01262  | 255                     |
| Tool-F        | usher:                       | Arnold La   | amon           | Depth to First Water:   | 92.0         | ft bo            | IS   |                                       |                       |        |                         |
| Rig Ge        | eologist:                    | Ellen Rec   | Iner           | Converted to Well:  | ×Υ           | /es              | No   |                                       |                       |        |                         |
|               | Drilling Run (               | ft)         |                | Description   |              | <b>D</b>         |  |                                       |                       |        |                         |
| Depth<br>(ft) | and Average<br>Penetration R | ate         | Class          | (See Pilot boring log for full geologic descriptions)                         |              | Drillin          | g notes and observati<br>temporary backfill ma | ions confirming<br>aterial in drill c | y presence<br>uttings | of     | Drilling Fluid          |
|               |                              |             |                | (74.5-77.5 ft) Well graded sand with gravel (SW); yellowish brown (10YR 5/4). |              |                  |  |                                       |                       |        |                         |
| 77            |                              | SW          |                |   |              |                  |  |                                       |                       |        |                         |
| 1             | (59.6 - 79.1)                |             |                | (// ft) Decrease in small to large pebbles,<br>increase in sand.              |              |                  |  |                                       |                       |        |                         |
| 78            | 5.38 mins/ft                 |             |                | (77.5-83 ft) Well graded sand with silt and grave                             | 1            |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| /9            | -                            |             |                |   | 1            | 791-9            | 99 1') Normal drilling                         | · ·                                   |                       |        | (79 1 - 99 1')          |
|               | -                            |             |                |   |              | 0                | son ) normal anning                            |                                       |                       |        | 1500 gallons of water   |
| 80            |                              | SW/ SM      |                |   |              |                  |  |                                       |                       |        | water recovered; 300    |
|               |                              | 300-30      |                |   |              |                  |  |                                       |                       |        | gallons of water gained |
| 81            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               | -                            |             |                |   |              |                  |  |                                       |                       |        |                         |
| 82            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 83            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 03            |                              |             | <u> </u>       | (83-92.5 ft) Well graded sand (SW); light gray                                | 11           |                  |  |                                       |                       |        |                         |
|               | -                            |             |                | (10YR 7/2).   |              |                  |  |                                       |                       |        |                         |
| 84            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 85            | -                            |             |                |   | (8           | 35 0') (         | Observed trace amou                            | ints of Cemexa                        | #1/20 (20x4           | 10)    |                         |
| - –           |                              |             |                |   | L            | apis L           | ustre Sand in drill cut                        | tings.                                |                       | ,      |                         |
| 86            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 87            | (79.1 - 99.1)                |             |                |   |              |                  |  |                                       |                       |        |                         |
|               | 4.35 mins/ft                 |             |                |   |              |                  |  |                                       |                       |        |                         |
| 88            |                              | SW          |                |   |              |                  |  |                                       |                       |        |                         |
|               | 1                            |             |                |   |              |                  |  |                                       |                       |        |                         |
|               | 1                            |             |                |   |              |                  |  |                                       |                       |        |                         |
| 89_           | 1                            |             |                |   |              |                  |  |                                       |                       |        |                         |
|               | {                            |             |                |   |              |                  |  |                                       |                       |        |                         |
| 90            | {                            |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 91            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               | ļ                            |             |                |   |              |                  |  |                                       |                       |        |                         |
| 92            |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
|               |                              |             |                |   |              |                  |  |                                       |                       |        |                         |
| 02            | ]                            |             |                | (92.5-99 ft) Well graded sand with silt and grave                             |              |                  |  |                                       |                       |        |                         |
|               | 1                            |             |                | ((((((((((((((((((((((((((((((((((((((  |              |                  |  |                                       |                       |        |                         |
|               | 1                            | SW-SM       | ٳؙۮ۬ۛ؞ؘٞٞۿٳؙۥٳ |   |              |                  |  |                                       |                       |        |                         |
| 94            | -                            |             |                |   |              |                  |  |                                       |                       |        |                         |
| <u> </u>      | {                            |             |                |   | Ţ            |                  |  |                                       |                       |        |                         |
| 95            |                              |             |                | Oleanification Original for the state   |              |                  |  | 1                                     |                       |        | <u></u>                 |
| Abbre         | viations: US                 |             |                | Classification System, $\pi$ = feet, bgs = t                                  |              |                  | una surrace, ams                               | $s_1 = above m$                       | iean sea              | ievel, | GVV =                   |
| ground        | uwater, Note                 | es: Solid b | oue wate       | er table mark represents depth to water                                       | (IT. D       | gs.)             | uepin to water m                               | easured du                            | ring colle            | ction  | oi the tirst VAS        |
| interva       | a in the pilot               | uorenole.   |                |   |              |                  |  |                                       |                       |        |                         |

| 9             | ARC  | ٩C              | DIS                                   |                        | Drilling Log   | Log Sheet: 6 |  |   |                  | 6 of 8                      |
|---------------|--|-----------------|---------------------------------------|------------------------|--|--------------|--|---|------------------|-----------------------------|
| Date S        | Started:                                       | 10/1            | 12/202                                | 2                      | Surface Elevation:   | <u>551.6</u> | 7 ft amsl  | Borin   | No · FM          | /_02B                       |
| Date C        | Completed:                                     | 10/2            | 22/202                                | 2                      | Northing (NAD83):  | 21006        | 37.96  | Бонні   | g NO <u>I V</u>  | <u>-02D</u>                 |
| Drilling      | ı Co.:   | Cas             | cade                                  |                        | Easting (NAD83):   | 76145        | 544.74   | Client:   | PG&E             |                             |
| Drilling      | ,<br>Method:                                   | Dua             | l Rota                                | rv                     | <br>Total Depth:   | 142.1        | ft bas   | Project:  | Final GW Re      | emedy Phase 2A              |
| Drill Ri      | a Type:  | Fore            | emost                                 | DR 24H                 | ID Conductor Casing Diameter   | 24 inc       | hes  | Location.   | PG&F Topo        | ck. Needles                 |
| Driller       | Name <sup>.</sup>                              | lost            | h Sald                                | ana                    | Drill Casing Diameter:   | 22 inc       | hes  | Loouton   | California       |                             |
| Drilling      | Acet   |                 | / Δ Δ                                 |                        | Drill Bit:   | 22" 8        | 20" Tricone  | Project Nu  | umber: 30126     | 255                         |
|               | Jushar   | Δrp             | <u>. / A.A</u>                        | <u>. / D.A.</u><br>mon | Dhirbit.<br>Denth to First Water:  | 02 0 fi      |  | Појссти   | <u></u>          | 200                         |
| Rig G         | ologist <sup>.</sup>                           |                 | n Red                                 | ner                    | Converted to Well:   |              |  |   |                  |                             |
|               |  |                 | i i i i i i i i i i i i i i i i i i i |                        |  |              |  |   |                  |                             |
| Depth<br>(ft) | Drilling Run (<br>and Average<br>Penetration R | ft)<br>e<br>ate | USCS<br>Code                          | USCS<br>Class          | Description<br>(See Pilot boring log for<br>full geologic descriptions)                        | Dr           | illing notes and observation temporary backfill ma | ations confirming presence of material in drill cuttings Drilling Fluid |                  |                             |
|               |  |                 |                                       |                        | (92.5-99 ft) Well graded sand with silt and grave  | I (95.       | 0') Observed trace amour                           | nts of Cemex  | #1/20 (20x40)    |                             |
|               |  |                 |                                       |                        |  |              |  | ings.   |                  |                             |
| 90            |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 97            | (79.1 - 99.1)<br>4 35 mins/ft                  | S               | SW-SM                                 |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   | *                |                             |
| 98            |  |                 |                                       |                        |  |              |  |   |                  |                             |
| - L           |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 99            |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  | 1 [             |                                       |                        | (99-104 ft) Well graded sand with gravel (SW);<br>light gray (10YR 7/2), some brown (10YR 5/3) | (99.         | 1 - 119.1') Normal drilling                        | approximate   | y 99-111' bgs,   | (99.1 - 119.1')             |
| 100           |  |                 |                                       |                        |  | app          | roximately 113-119' bgs.                           | 1-113 bgs, no   | ormai drilling   | used; 1300 gallons of water |
| 100           |  |                 |                                       |                        |  |              |  |   |                  | water recovered; 0          |
|               |  |                 |                                       |                        |  |              |  |   |                  | galione of water loot       |
| 101           |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 | SW                                    |                        |  |              |  |   |                  |                             |
| _102_         |  |                 |                                       |                        | (102) Increase in the percentage of metadiorite  |              |  |   |                  |                             |
|               |  |                 |                                       |                        | pebbles.   |              |  |   |                  |                             |
| _103_         |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       | ૾૽ૼૡ૽૾૾૽૽૽૽૽૽          |  |              |  |   |                  |                             |
| _104_         |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        | (104-108 ft) Well graded sand with gravel (SW);<br>brown (10YR 5/3).                           |              |  |   |                  |                             |
| 105           |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  | (10          | 5.0') Observed trace amou                          | unts of Ceme  | x #1/20 (20x40)  |                             |
| 106           | 1  |                 | _                                     |                        |  |              |  |   |                  |                             |
|               | (00.4 . 440.5                                  |                 | SW                                    |                        | <b>~</b>   |              |  |   |                  |                             |
|               | (99.1 - 119.1)<br>4.45 mins/ft                 |                 |                                       |                        |  |              |  |   |                  |                             |
| 107           |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 108           |  |                 |                                       |                        | (108-112 ft) Well graded sand with silt and  |              |  |   |                  |                             |
|               |  |                 |                                       |                        | gravel (SW-SM); brown (10YR 5/3), some light   |              |  |   |                  |                             |
| _109_         |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
| _110_         |  |                 | SW-SM                                 |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 111           |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               | 1  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
|               |  |                 |                                       |                        | (112-115 ft) Silty sand (SM); brown (10YR 5/3).  | 11           |  |   |                  |                             |
|               |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 113           |  |                 | SM                                    |                        |  |              |  |   |                  |                             |
| <u>-</u>      |  |                 |                                       |                        |  |              |  |   |                  |                             |
| 114           |  |                 |                                       |                        |  |              | manual conference                                  | 11  |                  |                             |
| Abbre         | viations: US                                   | SUS             | = Unif                                | iea Soil               | Classification System, It = feet, bgs = b  |              | pround surface, ams                                | i = above n   | nean sea leve    | I, GVV =                    |
| ground        | awater, Note                                   | es: S           |                                       | ue wate                | er table mark represents depth to water  | (π. bg       | s.) depth to water me                              | easured du  | iring collectior | n of the first VAS          |
| interva       | u in the pilot                                 | pore            | enole.                                |                        |  |              |  |   |                  |                             |

| 9             | ARC/   | DIS        | 5  | Drilling Log   |   | Sheet:  | 7 of 8                                   |  |
|---------------|--|------------|--|--|---|---|--|--|
| Date S        | Started:   | 10/12/20:  | 22   | Surface Elevation:   | 551.67 ft amsl                                  | - Boring No · FW  | /_02B                                    |  |
| Date (        | Completed:                                       | 10/22/20:  | 22   | Northing (NAD83):  | 2100637.96                                      |   | <u>-02D</u>                              |  |
| Drilling      | g Co.:   | Cascade    |  | Easting (NAD83):   | 7614544.74                                      | Client: <u>PG&amp;E</u>                                   |  |  |
| Drilling      | Method:  | Dual Rota  | ary  | Total Depth:   | <u>142.1 ft bgs</u>                             | Project: Final GW Re                                      | emedy Phase 2A                           |  |
| Drill R       | ig Type: I                                       | oremos     | t DR 241                                   | HD Conductor Casing Diameter:  | 24 inches                                       | Location: PG&E Topo                                       | ck, Needles                              |  |
| Driller       | Name:  | Josh Sak   | dana                                       | Drill Casing Diameter:   | 22 inches                                       | California  |  |  |
| Drilling      | a Asst: I  | G. / A.A   | . / D.A.                                   | Drill Bit:   | 23" & 20" Tricone                               | Project Number: 30126                                     | 255                                      |  |
| Tool-F        | Pusher:  | Arnold La  | amon                                       | Depth to First Water:  | 92.0 ft bas                                     |   |  |  |
| Rig G         | eologist:  | Ellen Rec  | Iner                                       | Converted to Well:   | X Yes No  |   |  |  |
|               |  |            |  | Description  |   |   |  |  |
| Depth<br>(ft) | Drilling Run (f<br>and Average<br>Penetration Ra | t)<br>te   | USCS<br>Class                              | (See Pilot boring log for<br>full geologic descriptions)   | Drilling notes and observ<br>temporary backfill | vations confirming presence of material in drill cuttings | Drilling Fluid                           |  |
| 115           | -  | SM         |  | (112-115 ft) Silty sand (SM); brown (10YR 5/3).  |   |   |  |  |
|               |  |            | **************************************     | (115-119 ft) Well graded sand (SW); light  | (115.0') Observed trace a                       | mounts of Cemex #1/20 (20x40)                             | -  |  |
| ( -<br> -     |  |            |  | 5/3).  | Lapis Lustre Sand in drill                      | cuttings.   |  |  |
| 116           |  |            |  | •  |   |   |  |  |
|               | (99.1 - 119.1)<br>4.45 mins/ft                   |            |  | •  |   |   |  |  |
| 117_          | -  | SW         |  | 2<br>2   |   |   |  |  |
|               |  |            |  |  |   |   |  |  |
| 118_          | -  |            |  | •<br>•   |   |   |  |  |
|               | -  |            |  | •  |   |   |  |  |
| 119_          | -  |            | **********                                 |  |   |   |  |  |
|               |  |            |  | (119-122 ft) Well graded sand with silt (SW-SM)<br>brown (10YR 5/3).                               | <sup>;</sup> (119.1 - 130.0') Normal dr         | illing  | (119.1 - 130.0')<br>900 gallons of water |  |
| 120           |  |            |  |  |   |   | used; 1200 gallons of                    |  |
|               |  |            |  |  |   |   | gallons of water gained                  |  |
| 101           | 1  | SW-SN      |  |  |   |   |  |  |
| <u></u> IZI   |  |            |  |  |   |   |  |  |
|               |  |            |  |  |   |   |  |  |
| 122_          | -  |            |  | (122-124.5 ft) Silty sand (SM); dark grayish   | -   |   |  |  |
|               | -  |            |  | brown (2.5Y 4/2), and reddish yellow (7.5YR  |   |   |  |  |
| 123_          | -  | CM CM      |  |  |   |   |  |  |
|               | -  | 5101       |  |  |   |   |  |  |
| 124_          | -  |            |  |  |   |   |  |  |
|               | (119.1 - 130.0)                                  |            |  | (124 E 126 E ft) Wall graded cand with ailt  | _   |   |  |  |
| 125_          | 6.61 mins/ft                                     |            |  | (SW-SM); dark gravish brown (2.5Y 4/2), and  | (105.01) 01                                     |   | -  |  |
|               |  | SW-SM      |  | reddish yellow (7.5YR 7/6).  | Lapis Lustre Sand in drill                      | mounts of Cemex #1/20 (20x40) cuttings.                   |  |  |
| _126_         |  |            |  | •  |   |   |  |  |
|               |  |            |  | ·  |   |   |  |  |
| 127           |  | 614        |  | (126.5-127.5 ft) Silty sand with gravel (SM); dark<br>gravish brown (2,5Y 4/2), and reddish vellow |   |   |  |  |
|               |  |            |  | (7.5YR 7/6).   |   |   |  |  |
| 128           | 1  |            |  | (127.5-131 ft) Well graded sand with gravel  | h   |   |  |  |
|               | 1  |            |  | yellow (7.5YR 7/6).  | "   |   |  |  |
|               | 1  |            |  | ·  |   |   |  |  |
| 129_          | 1  | sw         |  |  |   |   |  |  |
|               | 1  |            |  |  |   |   |  |  |
| 130           |  | - 1        |  | •  | (130.0 - 140.0') Normal dr                      | illing  | (130.0 - 140.0')                         |  |
|               | -  |            |  |  |   | 2   | 1000 gallons of water                    |  |
| 131_          | -  |            |  | (131-132 ft) Silty cand (SM): dark gravish brown   |   |   | water recovered; 0                       |  |
|               | (130.0 - 140.0)                                  | SM         |  | (2.5Y 4/2), and reddish yellow (7.5YR 7/6).  |   |   | gallons of water lost                    |  |
| _132_         | 5.40 mins/ft                                     |            |  |  | 41  |   |  |  |
|               |  | Ν/Δ        |  | {(132-135 tt) Sedimentary Rock - Conglomerate;<br>{brown (7.5YR 5/4).                              |   |   |  |  |
| 133           |  |            | $\hat{\mathbf{x}} \times \hat{\mathbf{x}}$ |  |   |   |  |  |
| Abbre         | viations: US                                     | CS = Uni   | fied Soil                                  | Classification System, ft = feet, bgs = b  | elow ground surface, ar                         | msl = above mean sea leve                                 | I, GW =                                  |  |
| groun         | dwater, Note                                     | s: Solid b | lue wate                                   | er table mark represents depth to water  | (ft. bgs.) depth to water                       | measured during collection                                | n of the first VAS                       |  |
| interva       | al in the pilot l                                | oorehole.  |  |  |   |   |  |  |

| 9                  | ARC   | ADI:               | S        | Drilling Log               |  |  |                 | Sheet: 8 of 8            |                  |                 |          |                        |  |  |
|--------------------|---|--------------------|----------|----------------------------|--|--|-----------------|--------------------------|------------------|-----------------|----------|------------------------|--|--|
| Date S             | Started:  | 10/12/2            | 022      |                            | Surface Elevation:                                       | 551.67 ft amsl   |                 |                          | Borine           | n No ·          | FW.      | .02B                   |  |  |
| Date C             | Completed:  | 10/22/2            | 022      |                            | Northing (NAD83):  | 2100637.96   |                 |                          | Donné            | <b>y NO</b>     | 1 44     |                        |  |  |
| Drilling Co.:      |   | Cascad             | e        |                            | Easting (NAD83):   | 7614544.74   |                 |                          | Client:          | PG&E            |          |                        |  |  |
| Drilling Method:   |   | Dual Ro            | otary    | ,                          | Total Depth:   | 14   | 42.1 ft         | bgs                      | Project:         | <u>Final G</u>  | W Rer    | nedy Phase 2A          |  |  |
| Drill Rig Type:    |   | Foremost DR 24HD   |          |                            | HD Conductor Casing Diameter:                            | 24 inches  |                 |                          | Location:        | PG&E            | Торос    | k, Needles             |  |  |
| Driller Name:      |   | Josh Saldana       |          |                            | Drill Casing Diameter:                                   | <u>22</u>  | <u>2 inche</u>  | S                        |                  | <u>Califorr</u> | nia      |                        |  |  |
| Drilling           | g Asst:   | <u>L.G. / A</u>    | .A. /    | D.A.                       | Drill Bit:   | <u>23</u>  | 3" & 20         | )" Tricone               | Project Nu       | umber: 3        | 301262   | 255                    |  |  |
| Tool-F             | Tool-Pusher:  |                    | Lam      | on                         | Depth to First Water:                                    | 92   | <u>2.0 ft b</u> | gs                       |                  |                 |          |                        |  |  |
| Rig Geologist:     |   | Ellen Redner       |          |                            | Converted to Well:                                       | ×  | Yes             | No                       |                  |                 |          |                        |  |  |
| Depth Drilling Run |   | (ft) USCS          |          | 1808                       | Description  | Drilling notes and observations confirming presence of |                 |                          |                  |                 |          |                        |  |  |
| (ft)               | and Äverag<br>Penetration R   | ate Cod            | e (      | Class                      | (See Pilot boring log for<br>full geologic descriptions) | temporary backfill material in drill cuttings          |                 |                          |                  |                 |          | Drilling Fluid         |  |  |
|                    |   |                    | ×        | ××                         | (132-135 ft) Sedimentary Rock - Conglomerate;            | +  |                 |                          |                  |                 |          |                        |  |  |
|                    | -   |                    | ××       | ×××                        | brown (7.5YR 5/4).                                       |  |                 |                          |                  |                 |          |                        |  |  |
| 134                |   | N/A                | A ×      | × ×<br>× ×                 |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    | ××       | × ×<br>× ×                 | 2  |  |                 |                          |                  |                 |          |                        |  |  |
| _135_              |   |                    |          | × ×<br>× ×                 | (125 120 5 ft) Sodimonton / Pook                         |  | (125.0)         | ) Observed trace amo     | unto of Como     | Q Mooh (        | 2v16)    |                        |  |  |
|                    |   |                    | ×××      | ×××                        | Conglomerate; brown (7.5YR 5/4).                         |  | Lapis L         | Lustre Sand in drill cut | tings.           | o wesh (a       |          |                        |  |  |
| 136                |   |                    | ××       | × ×<br>× ×                 | (135.5-139.5 ft) Moist to dry.                           |  |                 |                          |                  |                 |          |                        |  |  |
|                    | (130.0 - 140.0  | )                  | ×××      | ×××                        |  |  |                 |                          |                  |                 |          |                        |  |  |
| 137                | 5.40 mins/ft  |                    | ×        | ×××                        |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   | N/A                |          | × ×<br>× ×                 |  |  |                 |                          |                  |                 |          |                        |  |  |
| 400                | -   |                    | ××       | × ×<br>× ×                 | 2  |  |                 |                          |                  |                 |          |                        |  |  |
| 138                | -   |                    | ×××      |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    | x        | ×××                        |  |  |                 |                          |                  |                 |          |                        |  |  |
| 139_               |   |                    | ×××      | × ×<br>× ×                 | }  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    | ×        | ××                         | (139 5-142 ft) Sedimentary Rock -                        | _  |                 |                          |                  |                 |          |                        |  |  |
| 140                |   | _                  | ××       | × ×<br>× ×                 | Conglomerate; brown (7.5YR 5/4).                         |  | (140.0          | 142 1') After circulat   | ting to fluch or | sing the        | 22 inch  | (140.0 142.1')         |  |  |
|                    | -   |                    | ×××      | ××                         |  |  | diamet          | ter casing was advance   | ed by pushing    | g the casin     | g        | No drilling fluid used |  |  |
| 141                | N/A   | N/A                | ۹ Ix     | × ×                        |  |  | withou          | t advancing drill string | and the cuttir   | ngs below       | 140 ft   |                        |  |  |
| <u> </u>           |   |                    | ××       | × ×<br>× ×                 |  |  | were n          | iot removed.             |                  |                 |          |                        |  |  |
| 142_               |   |                    | ×××      | $\times$ $\times$ $\times$ |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            | End of Boring at 142.06 ft bgs.                          |  |                 |                          |                  |                 |          |                        |  |  |
| 143                |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            | •  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | -   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 145                | 1   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | -   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 146                | -   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | ł   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | -   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | -   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 148_               |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 149                |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 150                |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | 1   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | 1   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| i <b>151</b>       |   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | 1   |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
| 152<br>Abbro       | 152  <br>Abbreviations: LISCS = Unified Soil Classification System ft = fact, bas = below around surface, amal = above mean ace level, CM = |                    |          |                            |  |  |                 |                          |                  |                 |          |                        |  |  |
|                    | dwater Not  | - 00 – 0<br>20 - 0 | hluc     |                            | er table mark represents depth to water                  | اصر<br>(ft   | t hae \         | denth to water m         |                  |                 | a ievel, | of the firet \/AS      |  |  |
| interva            | a in the nilot  | horehol            | PINC     | - wat                      | er table mark represents depth to water                  | ίη.  | vys.)           | acpui lo walei III       | Casuleu uu       |                 | 551011   |                        |  |  |
|                    |   | 5010101            | <b>.</b> |                            |  |  |                 |                          |                  |                 |          |                        |  |  |