

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID | Geologic Formation | USCS Code | USCS Class | Well Construction                                                                       | Calculated Material Volumes     | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume    |
|------------|-----------------------|--------------------|-----------|------------|-----------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| 1          |                       |                    |           |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                     |                                 |                                                                                                   |
| 2          |                       |                    |           |            | (0.0 - 4.0')<br>Cemex #0/30 Mesh<br>(30x50) Lapis Lustre Sand                           | (0.0 - 4.0')<br>9.8 bags        | (0.0 - 4.0') 10 bags (102%)<br>Note: Temporary backfill to be removed when vaults are installed.  |
| 3          |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 4          |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 5          |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 6          |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 7          |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 8          |                       | Topock - Fill      | SP        |            |                                                                                         |                                 |                                                                                                   |
| 9          |                       |                    |           |            | (4.0 - 14.5')<br>Portland Cement<br>3% Bentonite Type<br>I, II, and V with<br>Hydrogel  | (4.0 - 14.5')<br>95.5 gallons   | (4.0 - 14.5') 98 gallons (103%)<br>Note: Grout seal fourth lift, saline water used to mix grout.  |
| 10         |                       |                    |           |            | (0.0 - 21.4')<br>18.0" Borehole                                                         |                                 |                                                                                                   |
| 11         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 12         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 13         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 14         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 15         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 16         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 17         |                       |                    |           |            | (14.5 - 60.4')<br>Portland Cement<br>3% Bentonite Type<br>I, II, and V with<br>Hydrogel | (14.5 - 60.4')<br>419.6 gallons | (14.5 - 60.4') 470 gallons (112%)<br>Note: Grout seal third lift, saline water used to mix grout. |
| 18         |                       | Topock - Fill      | SM        |            |                                                                                         |                                 |                                                                                                   |
| 19         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |
| 20         |                       |                    |           |            |                                                                                         |                                 |                                                                                                   |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | <b>Well ID: IRZ-13D</b>                    |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                       | Calculated Material Volumes     | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume    |
|------------|------------------------------------------------------|----------------------------|-----------|------------|-----------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| 21         |                                                      | Topock - Fill              | SM        |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                     |                                 |                                                                                                   |
| 22         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 23         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 24         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 25         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 26         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 27         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 28         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 29         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 30         |                                                      |                            |           |            | (14.5 - 60.4')<br>Portland Cement<br>3% Bentonite Type<br>I, II, and V with<br>Hydrogel | (14.5 - 60.4')<br>419.6 gallons | (14.5 - 60.4') 470 gallons (112%)<br>Note: Grout seal third lift, saline water used to mix grout. |
| 31         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 32         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 33         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 34         | IRZ-13-VAS-32-37<br>(220 ppb)<br>11/17/2018<br>15:45 |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 35         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 36         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 37         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 38         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |
| 39         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                 |                                                                                                   |
| 40         |                                                      |                            |           |            |                                                                                         |                                 |                                                                                                   |

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|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                                                        | Calculated Material Volumes     | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume    |
|------------|----------------------------------------------------------|----------------------------|-----------|------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| 41         |                                                          |                            |           |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                                                      |                                 |                                                                                                   |
| 42         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                                                                          |                                 |                                                                                                   |
| 43         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 44         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 45         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                                                                          |                                 |                                                                                                   |
| 46         |                                                          | Topock - Alluvium Deposits | ML        |            |                                                                                                                          |                                 |                                                                                                   |
| 47         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 48         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 49         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                                                                          |                                 |                                                                                                   |
| 50         |                                                          |                            |           |            | (14.5 - 60.4')<br>Portland Cement<br>3% Bentonite Type<br>I, II, and V with<br>Hydrogel<br>(49.5 - 50.5')<br>Centralizer | (14.5 - 60.4')<br>419.6 gallons | (14.5 - 60.4') 470 gallons (112%)<br>Note: Grout seal third lift, saline water used to mix grout. |
| 51         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 52         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 53         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 54         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                                                                          |                                 |                                                                                                   |
| 55         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 56         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 57         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 58         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018<br>11:50 | Topock - Alluvium Deposits | SM        |            |                                                                                                                          |                                 |                                                                                                   |
| 59         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |
| 60         |                                                          |                            |           |            |                                                                                                                          |                                 |                                                                                                   |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

# Well Construction Log

Sheet: 4 of 12

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | <b>Well ID: IRZ-13D</b>                    |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                 | Geologic Formation         | USCS Code | USCS Class | Well Construction                                   |                                                                                  | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                                                                            |                                  |
|------------|-------------------------------------------------------|----------------------------|-----------|------------|-----------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 61         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018 11:50 | Topock - Alluvium Deposits | SM        |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing | (41.2 - 61.3')<br>18.0" Borehole                                                 |                             | (60.4 - 98.7') 450 gallons (148%)<br>Note: Grout seal second lift, used >20% of the calculated volume due to potential grout migration and voids forming during drilling. Saline water used to mix grout. |                                  |
| 62         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 63         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 64         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 65         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 66         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 67         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                     | (60.4 - 98.7')<br>Portland Cement<br>3% Bentonite Type I, II and V with Hydrogel |                             |                                                                                                                                                                                                           | (61.3 - 82.5')<br>18.0" Borehole |
| 68         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 69         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 70         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 71         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 72         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 73         | Topock - Alluvium Deposits                            | SM                         |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 74         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 75         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 76         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 77         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 78         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 79         | Topock - Alluvium Deposits                            | SM                         |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |
| 80         |                                                       |                            |           |            |                                                     |                                                                                  |                             |                                                                                                                                                                                                           |                                  |

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|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth<br>(ft) | Groundwater<br>Sample ID | Geologic<br>Formation            | USCS<br>Code | USCS<br>Class                                                                       | Well Construction                                                                      |                                                                                     | Calculated<br>Material Volumes                                                      | Material Volumes Installed<br>Note: percentages are the actual<br>volume vs the calculated volume |  |  |  |
|---------------|--------------------------|----------------------------------|--------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--|--|--|
| 81            |                          | Topock -<br>Alluvium<br>Deposits | SM           |   | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                    |   |   |                                                                                                   |  |  |  |
| 82            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 83            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 84            |                          | Topock -<br>Alluvium<br>Deposits | SM           |   |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 85            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 86            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 87            |                          | Topock -<br>Alluvium<br>Deposits | SM           |   |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 88            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 89            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 90            |                          | Topock -<br>Alluvium<br>Deposits | GM           |  | (60.4 - 98.7')<br>Portland Cement<br>3% Bentonite Type<br>I, II and V with<br>Hydrogel |  |  | (60.4 - 98.7')<br>305 gallons                                                                     |  |  |  |
| 91            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 92            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 93            |                          | Topock -<br>Alluvium<br>Deposits | GM           |  |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 94            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 95            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 96            |                          | Topock -<br>Alluvium<br>Deposits | GP-GM        |  | (94.5 - 95.5')<br>Centralizer                                                          |  |  |                                                                                                   |  |  |  |
| 97            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 98            |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 99            |                          | Topock -<br>Alluvium<br>Deposits | GP-GM        |  |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
| 100           |                          |                                  |              |                                                                                     |                                                                                        |                                                                                     |                                                                                     |                                                                                                   |  |  |  |
|               |                          | Topock -<br>Alluvium<br>Deposits | SM           |  |                                                                                        |                                                                                     |  |                                                                                                   |  |  |  |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                      | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                       | Calculated Material Volumes       | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------------|----------------------------|-----------|------------|-----------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------|
| 101        | IRZ-13-VAS-102-107<br>(<0.17 U ppb)<br>11/19/2018<br>09:30 | Topock - Alluvium Deposits | SM        |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                     |                                   |                                                                                                |
| 102        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 103        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 104        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 105        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 106        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 107        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 108        |                                                            | Topock - Alluvium Deposits | ML        |            |                                                                                         |                                   |                                                                                                |
| 109        |                                                            | Topock - Alluvium Deposits | SM        |            | (98.7 - 146.7')<br>Portland Cement<br>3% Bentonite Type<br>I, II and V with<br>Hydrogel | (96.6 - 104.3')<br>16.0" Borehole |                                                                                                |
| 110        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 111        |                                                            | Topock - Alluvium Deposits | GM        |            |                                                                                         |                                   |                                                                                                |
| 112        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                   |                                                                                                |
| 113        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 114        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                   |                                                                                                |
| 115        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 116        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                   |                                                                                                |
| 117        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 118        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                   |                                                                                                |
| 119        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |
| 120        |                                                            |                            |           |            |                                                                                         |                                   |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity



|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezcuita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                       | Calculated Material Volumes      | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                                                                                        |
|------------|-----------------------|----------------------------|-----------|------------|-----------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 121        |                       | Topock - Alluvium Deposits | SM        |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                     |                                  |                                                                                                                                                                                                                       |
| 122        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 123        |                       | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 124        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 125        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 126        |                       | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 127        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 128        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 129        |                       | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 130        |                       |                            |           |            | (98.7 - 146.7')<br>Portland Cement<br>3% Bentonite Type<br>I, II and V with<br>Hydrogel | (98.7 - 146.7')<br>305.3 gallons | (98.7 - 146.7') 410 gallons (134%)<br>Note: Grout seal first lift, used<br>>20% of the calculated volume due<br>to potential grout migration and<br>voids forming during drilling.<br>Saline water used to mix grout. |
| 131        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 132        |                       | Topock - Alluvium Deposits | GM        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 133        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 134        |                       | Topock - Alluvium Deposits | SM        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 135        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 136        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 137        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 138        |                       | Topock - Alluvium Deposits | ML        |            |                                                                                         |                                  |                                                                                                                                                                                                                       |
| 139        |                       |                            |           |            | (137.0 - 158.0')<br>16.0" Borehole                                                      |                                  |                                                                                                                                                                                                                       |
| 140        |                       |                            |           |            |                                                                                         |                                  |                                                                                                                                                                                                                       |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | <b>Well ID: IRZ-13D</b>                    |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezcuita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                      | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                                     | Calculated Material Volumes      | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                                                                                        |
|------------|------------------------------------------------------------|----------------------------|-----------|------------|-------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 141        | IRZ-13-VAS-142-147<br>( $<0.17$ U ppb)<br>11/19/2018 14:35 | Topock - Alluvium Deposits | ML        |            | (0.0 - 160.4')<br>10" SHUR-GRIP<br>SDR17 PVC Casing                                                   |                                  |                                                                                                                                                                                                                       |
| 142        |                                                            |                            |           |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 143        |                                                            | Topock - Alluvium Deposits | SM        |            | (98.7 - 146.7')<br>Portland Cement<br>3% Bentonite Type<br>I, II and V with<br>Hydrogel               | (98.7 - 146.7')<br>305.3 gallons | (98.7 - 146.7') 410 gallons (134%)<br>Note: Grout seal first lift, used<br>>20% of the calculated volume due<br>to potential grout migration and<br>voids forming during drilling.<br>Saline water used to mix grout. |
| 144        |                                                            |                            |           |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 145        |                                                            | Topock - Alluvium Deposits | GM        |            | (146.7 - 148.8')<br>Bentonite pellets<br>seal Pel-Plug<br>(TR30) 3/8"                                 | (146.7 - 148.8')<br>2.9 buckets  | (146.7 - 148.8') 3 buckets (103%)<br>Note: Intermediate seal                                                                                                                                                          |
| 146        |                                                            | Topock - Alluvium Deposits | ML        |            | (149.5 - 150.5')<br>Centralizer<br>(148.8 - 152.2')<br>Cemex #60 Mesh<br>(40x70) Lapis Lustre<br>Sand | (148.8 - 152.2')<br>5.7 bags     | (148.8 - 152.2') 6 bags (105%)<br>Note: Transition sand                                                                                                                                                               |
| 147        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 148        |                                                            | Topock - Alluvium Deposits | GM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 149        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 150        |                                                            | Topock - Alluvium Deposits | GM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 151        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 152        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 153        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 154        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 155        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 156        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 157        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 158        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 159        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |
| 160        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                                                       |                                  |                                                                                                                                                                                                                       |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity



|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                              | Calculated Material Volumes    | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                              |
|------------|-----------------------|----------------------------|-----------|------------|----------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 161        |                       | Topock - Alluvium Deposits | SM        |            | (160.4 - 210.2')<br>10" 10-Slot 316L SS Wire Wrap Screen       |                                |                                                                                                                             |
| 162        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 163        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 164        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 165        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 166        |                       | Topock - Alluvium Deposits | ML        |            |                                                                |                                |                                                                                                                             |
| 167        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 168        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 169        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 170        |                       |                            |           |            | (152.2 - 217.0')<br>Cemex #0/30 Mesh (30x50) Lapis Lustre Sand | (152.2 - 217.0')<br>111.7 bags | (152.2 - 217.0') 121 bags (108%)<br>Note: Filter Pack, ran dummy tool and swabbed filter pack for approximately 90 minutes. |
| 171        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 172        |                       | Topock - Alluvium Deposits | SM        |            |                                                                |                                |                                                                                                                             |
| 173        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 174        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 175        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 176        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 177        |                       | Topock - Alluvium Deposits | SM        |            |                                                                |                                |                                                                                                                             |
| 178        |                       |                            |           |            |                                                                |                                |                                                                                                                             |
| 179        |                       |                            |           |            | (177.9 - 197.7')<br>16.0" Borehole                             |                                |                                                                                                                             |
| 180        |                       |                            |           |            |                                                                |                                |                                                                                                                             |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                           | Geologic Formation         | USCS Code | USCS Class | Well Construction                                              | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-------------------------------------------------|----------------------------|-----------|------------|----------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 181        | IRZ-13-VAS-180-185 (190 ppb) 11/27/2018 12:35   | Topock - Alluvium Deposits | SM        |            | (160.4 - 210.2')<br>10" 10-Slot 316L SS Wire Wrap Screen       |                             |                                                                                                |
| 182        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 183        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 184        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 185        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 186        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                                |                             |                                                                                                |
| 187        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 188        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 189        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 190        |                                                 |                            |           |            | (152.2 - 217.0')<br>Cemex #0/30 Mesh (30x50) Lapis Lustre Sand |                             |                                                                                                |
| 191        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 192        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 193        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 194        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 195        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 196        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 197        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                                |                             |                                                                                                |
| 198        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 199        |                                                 |                            |           |            |                                                                |                             |                                                                                                |
| 200        | IRZ-13-VAS-197-202 (<0.83 ppb) 11/28/2018 11:28 | Topock - Alluvium Deposits | SM        |            | (197.7 - 217.5')<br>16.0" Borehole                             |                             |                                                                                                |

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|                  |                   |                         |                                                                                                                                    |                                            |
|------------------|-------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started:    | 06/28/2020        | Surface Elevation:      | 481.46 ft amsl                                                                                                                     | Well ID: IRZ-13D                           |
| Date Completed:  | 07/11/2020        | Shallow Well Elevation: | N/A                                                                                                                                |                                            |
| Drilling Co.:    | Cascade           | Deep Well Elevation:    | N/A                                                                                                                                | Client: PG&E                               |
| Drilling Method: | Dual Rotary       | Northing (NAD83):       | 2103309.58                                                                                                                         | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Jon Martinez      | Easting (NAD83):        | 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | A. & H. Amezguita | Borehole Diameter:      | 15 5/8-18 inches                                                                                                                   |                                            |
| Logger:          | Ellen Redner      | Static Water Level:     | See Log for Depths                                                                                                                 | Project Number: RC000753.0051              |
| Editor:          | Sean McGrane      | Development End Date:   | 8/7/2020                                                                                                                           |                                            |
| Total Depth:     | 227.7 ft bgs      | Well Completion:        | <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                           | Geologic Formation         | USCS Code | USCS Class | Well Construction                                           | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                              |
|------------|-------------------------------------------------|----------------------------|-----------|------------|-------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 201        | IRZ-13-VAS-197-202 (<0.83 ppb) 11/28/2018 11:28 | Topock - Alluvium Deposits | SM        |            | (160.4 - 210.2') 10" 10-Slot 316L SS Wire Wrap Screen       |                             |                                                                                                                             |
| 202        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 203        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 204        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 205        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 206        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                             |                             |                                                                                                                             |
| 207        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 208        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 209        |                                                 |                            |           |            | (152.2 - 217.0') Cemex #0/30 Mesh (30x50) Lapis Lustre Sand | (152.2 - 217.0') 111.7 bags | (152.2 - 217.0') 121 bags (108%)<br>Note: Filter Pack, ran dummy tool and swabbed filter pack for approximately 90 minutes. |
| 210        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 211        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 212        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 213        |                                                 |                            |           |            | (212.0 - 213.0') Centralizer                                |                             |                                                                                                                             |
| 214        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 215        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                             |                             |                                                                                                                             |
| 216        |                                                 |                            |           |            | (210.2 - 215.8') Sump and SS End Cap                        |                             |                                                                                                                             |
| 217        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 218        |                                                 |                            |           |            | (217.0 - 219.7') Cemex #60 Mesh (40x70) Lapis Lustre Sand   | (217.0 - 219.7') 7.3 bags   | (217.0 - 219.7') 7.5 bags (103%)<br>Note: Transition sand                                                                   |
| 219        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |
| 220        |                                                 |                            |           |            |                                                             |                             |                                                                                                                             |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

|                                  |                                                                                                                                                     |                                            |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Date Started: 06/28/2020         | Surface Elevation: 481.46 ft amsl                                                                                                                   | <b>Well ID: IRZ-13D</b>                    |
| Date Completed: 07/11/2020       | Shallow Well Elevation: N/A                                                                                                                         |                                            |
| Drilling Co.: Cascade            | Deep Well Elevation: N/A                                                                                                                            | Client: PG&E                               |
| Drilling Method: Dual Rotary     | Northing (NAD83): 2103309.58                                                                                                                        | Project: Final GW Remedy Phase 1           |
| Driller Name: Jon Martinez       | Easting (NAD83): 7615707.42                                                                                                                         | Location: PG&E Topock, Needles, California |
| Drilling Asst: A. & H. Amezguita | Borehole Diameter: 15 5/8-18 inches                                                                                                                 |                                            |
| Logger: Ellen Redner             | Static Water Level: See Log for Depths                                                                                                              | Project Number: RC000753.0051              |
| Editor: Sean McGrane             | Development End Date: 8/7/2020                                                                                                                      |                                            |
| Total Depth: 227.7 ft bgs        | Well Completion: <input type="checkbox"/> Flush <input type="checkbox"/> Stick-up <input checked="" type="checkbox"/> To Be Completed in Well Vault |                                            |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation                        | USCS Code | USCS Class | Well Construction                                               | Calculated Material Volumes        | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|----------------------------------------------------------|-------------------------------------------|-----------|------------|-----------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------|
| 221        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 222        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 223        |                                                          | Topock - Alluvium Deposits                | SM        |            |                                                                 |                                    |                                                                                                |
| 224        |                                                          |                                           |           |            | (219.7 - 227.7')<br>Bentonite pellets seal Pel-Plug (TR30) 3/8" | (217.5 - 227.7')<br>15.5" Borehole | (219.7 - 227.7')<br>16.8 buckets                                                               |
| 225        | IRZ-13-VAS-224-229<br>( $<0.83$ ppb)<br>11/28/2018 16:00 | Topock - Weathered Bedrock - conglomerate | SM        |            |                                                                 |                                    | (219.7 - 227.7') 19 buckets (113%)<br>Note: Decommissioned rathole                             |
| 226        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 227        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 228        |                                                          |                                           |           |            | End of Boring at 227.7 ft bgs.                                  |                                    |                                                                                                |
| 229        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 230        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 231        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 232        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 233        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 234        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 235        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 236        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 237        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 238        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 239        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |
| 240        |                                                          |                                           |           |            |                                                                 |                                    |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured pre-specific capacity

# Drilling Log

Sheet: 1 of 12

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | Boring No.: <u>IRZ-13D</u> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                     | Description<br>(See Pilot boring log for full geologic descriptions)                            | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings                          | Drilling Fluid                                                                                  |
|------------|------------------------------------------------|-----------|------------|-------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1          |                                                |           |            |                                     | (0.0 - 16.5') Topock - Fill; Poorly graded sand with silt (SP); dark yellowish brown (10YR 4/4) | (0.0') The upper 61.7 ft bgs of drilling reamed the temporary backfill material in the Temporary Backfill Log for IRZ-13D-TB. | (0.0 - 21.4') 65 gallons of water used; 45 gallons of water recovered; 20 gallons of water lost |
| 2          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 3          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 4          |                                                |           |            |                                     |                                                                                                 | (3.0') Observed plastering sand while hand digging to identify location of pilot borehole                                     |                                                                                                 |
| 5          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 6          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 7          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 8          |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 9          |                                                | SP        |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 10         | (0.0 - 21.4)<br>0.89 mins/ft                   |           |            | (0.0 - 21.4')<br>18.0" Steel Casing |                                                                                                 | (10.0') Observed Cemex #60 Mesh (40x70) Lapis Lustre Sand in drill cuttings.                                                  |                                                                                                 |
| 11         |                                                |           |            |                                     |                                                                                                 | (10.1 - 29.9') Soft drilling                                                                                                  |                                                                                                 |
| 12         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 13         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 14         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 15         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 16         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 17         |                                                |           |            |                                     | (16.5 - 24.5') Topock - Fill; Silty sand (SM); strong brown (7.5YR 4/6)                         |                                                                                                                               |                                                                                                 |
| 18         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 19         |                                                | SM        |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |
| 20         |                                                |           |            |                                     |                                                                                                 |                                                                                                                               |                                                                                                 |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezcuita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                      | Description<br>(See Pilot boring log for full geologic descriptions)                       | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings                                      | Drilling Fluid                                                                                     |
|------------|------------------------------------------------|-----------|------------|--------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 21         | (0.0 - 21.4)<br>0.89 mins/ft                   |           |            | (0.0 - 21.4')<br>18.0" Steel Casing  |                                                                                            | (20.0') Observed Cemex #60 Mesh (40x70) Lapis Lustre Sand and trace amounts of Cemex 30 Mesh (30x70) Lapis Lustre Sand in drill cuttings. |                                                                                                    |
| 22         |                                                | SM        |            |                                      |                                                                                            |                                                                                                                                           | (21.4 - 41.2') 161 gallons of water used; 150 gallons of water recovered; 11 gallons of water lost |
| 23         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 24         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 25         |                                                |           |            |                                      | (24.5 - 27.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); pale red (10R 6/2) |                                                                                                                                           |                                                                                                    |
| 26         |                                                | SM        |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 27         |                                                |           |            |                                      | (27.0 - 44.5') Topock - Alluvium Deposits; Silty sand (SM); pale brown (10YR 6/3)          |                                                                                                                                           |                                                                                                    |
| 28         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 29         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 30         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 31         | (21.4 - 41.2)<br>0.45 mins/ft                  |           |            | (21.4 - 41.2')<br>18.0" Steel Casing |                                                                                            | (30.0') Observed Cemex 30 Mesh (30x70) Lapis Lustre Sand in drill cuttings.<br>(30.5 - 31.5') Rough drilling                              |                                                                                                    |
| 32         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 33         |                                                | SM        |            |                                      |                                                                                            | (32.0 - 39.5') Soft drilling                                                                                                              |                                                                                                    |
| 34         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 35         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 36         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 37         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 38         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 39         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |
| 40         |                                                |           |            |                                      |                                                                                            |                                                                                                                                           |                                                                                                    |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval



|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | Boring No.: <u>IRZ-13D</u> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth<br>(ft) | Drilling Run (ft)<br>and Average<br>Penetration Rate | USCS<br>Code | USCS<br>Class                                                                            | Casing<br>Diameter                                                                                       | Description<br><br>(See Pilot boring log for<br>full geologic descriptions) | Drilling notes and observations confirming presence of<br>temporary backfill material in drill cuttings                                                                               | Drilling Fluid                                                                                       |
|---------------|------------------------------------------------------|--------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 41            | (21.4 - 41.2)<br>0.45 mins/ft                        | SM           |                                                                                          | (21.4 - 41.2')<br>18.0" Steel<br>Casing                                                                  |                                                                             | (40.0') Observed Cemex 30 Mesh (30x70) Lapis Lustre Sand and sand closely representing Cemex # 2/16 Mesh (16x30) Lapis Lustre Sand in drill cuttings.<br>(40.1 - 59.9') Soft drilling | (41.2 - 61.3') 180 gallons of water used; 220 gallons of water recovered; 40 gallons of water gained |
| 42            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 43            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 44            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 45            |                                                      | SM           | (44.5 - 46.0') Topock - Alluvium Deposits; Sandy silt with gravel (SM); brown (10YR 4/3) |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 46            |                                                      | ML           | (46.0 - 47.0') Topock - Alluvium Deposits; Sandy silt (ML); brown (10YR 4/3)             |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 47            |                                                      | SM           | (47.0 - 53.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); pink (7.5YR 7/4) |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 48            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 49            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 50            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 51            | (41.2 - 61.3)<br>0.70 mins/ft                        | SM           |                                                                                          | (41.2 - 61.3')<br>18.0" Steel<br>Casing                                                                  |                                                                             | (50.0') Observed Cemex #8 Mesh (8x16) Lapis Lustre Sand and sand closely representing Cemex # 2/16 Mesh (16x30) Lapis Lustre Sand in drill cuttings.                                  |                                                                                                      |
| 52            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 53            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 54            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 55            |                                                      | SM           | (53.0 - 57.0') Topock - Alluvium Deposits; Silty sand (SM); light red (2.5YR 6/6)        |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 56            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 57            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 58            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 59            |                                                      | SM           |                                                                                          | (57.0 - 64.5') Topock - Alluvium Deposits; Silty sand (SM); pinkish gray / grayish orange pink (5YR 7/2) |                                                                             |                                                                                                                                                                                       |                                                                                                      |
| 60            |                                                      |              |                                                                                          |                                                                                                          |                                                                             |                                                                                                                                                                                       |                                                                                                      |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

Sheet: 4 of 12

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | Boring No.: <u>IRZ-13D</u> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth<br>(ft) | Drilling Run (ft)<br>and Average<br>Penetration Rate | USCS<br>Code | USCS<br>Class | Casing<br>Diameter                                                                       | Description<br><br>(See Pilot boring log for<br>full geologic descriptions)                  | Drilling notes and observations confirming presence of<br>temporary backfill material in drill cuttings | Drilling Fluid                                                                                                   |
|---------------|------------------------------------------------------|--------------|---------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 61            | (41.2 - 61.3)<br>0.70 mins/ft                        | SM           |               | (41.2 - 61.3')<br>18.0" Steel<br>Casing                                                  |                                                                                              | (60.0') Observed Cemex #8 Mesh (8x16) Lapis Lustre Sand<br>Sand in drill cuttings.                      | (61.3 - 82.5') 170<br>gallons of water used;<br>200 gallons of water<br>recovered; 30 gallons of<br>water gained |
| 62            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 63            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 64            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 65            |                                                      | SM           |               | (64.5 - 67.0') Topock - Alluvium<br>Deposits; Silty sand (SM); pale<br>yellow (2.5Y 7/4) |                                                                                              |                                                                                                         |                                                                                                                  |
| 66            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 67            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 68            |                                                      | SM           |               | (67.0 - 77.0') Topock - Alluvium<br>Deposits; Silty sand (SM); pink<br>(5YR 7/3)         |                                                                                              |                                                                                                         |                                                                                                                  |
| 69            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 70            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 71            | (61.3 - 82.5)<br>0.94 mins/ft                        | SM           |               | (61.3 - 82.5')<br>18.0" Steel<br>Casing                                                  |                                                                                              | (70.0') Observed trace amounts of Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand in drill cuttings.     |                                                                                                                  |
| 72            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 73            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 74            |                                                      | SM           |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 75            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 76            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 77            |                                                      | SM           |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 78            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 79            |                                                      |              |               |                                                                                          |                                                                                              |                                                                                                         |                                                                                                                  |
| 80            |                                                      |              |               |                                                                                          | (77.0 - 87.5') Topock - Alluvium<br>Deposits; Silty sand (SM); very<br>pale brown (10YR 7/3) |                                                                                                         |                                                                                                                  |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                       | Description<br>(See Pilot boring log for full geologic descriptions)                                                           | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                        |
|------------|------------------------------------------------|-----------|------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 81         | (61.3 - 82.5)<br>0.94 mins/ft                  |           |            | (61.3 - 82.5')<br>18.0" Steel Casing  |                                                                                                                                | (80.0') Observed little amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                       |
| 82         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 83         |                                                | SM        |            |                                       |                                                                                                                                |                                                                                                      | (82.5 - 96.6') 2083 gallons of water used; 300 gallons of water recovered; 1783 gallons of water lost |
| 84         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 85         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 86         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 87         |                                                |           |            |                                       | (87') Topock - Alluvium Deposits; pink (5YR 7/4)                                                                               |                                                                                                      |                                                                                                       |
| 88         |                                                |           |            |                                       | (87.5 - 97.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); light reddish brown (2.5YR 7/3)                        |                                                                                                      |                                                                                                       |
| 89         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 90         | (82.5 - 96.6)<br>2.91 mins/ft                  |           |            | (82.5 - 96.6')<br>16.0" Steel Casing  |                                                                                                                                | (90.0') Observed some Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.                 |                                                                                                       |
| 91         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 92         |                                                | GM        |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 93         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 94         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 95         |                                                |           |            |                                       |                                                                                                                                | (94.0 - 96.0') Rough drilling                                                                        |                                                                                                       |
| 96         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 97         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 98         | (96.6 - 104.3)<br>1.16 mins/ft                 | GP-GM     |            | (96.6 - 104.3')<br>16.0" Steel Casing | (97.0 - 99.0') Topock - Alluvium Deposits; Poorly graded gravel with silt (GP-GM); light reddish brown / light brown (5YR 6/4) |                                                                                                      | (96.6 - 104.3') 738 gallons of water used; 100 gallons of water recovered; 638 gallons of water lost  |
| 99         |                                                |           |            |                                       |                                                                                                                                |                                                                                                      |                                                                                                       |
| 100        |                                                | SM        |            |                                       | (99.0 - 107.0') Topock - Alluvium Deposits; Silty sand (SM); light reddish brown / light                                       |                                                                                                      |                                                                                                       |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code                                                                           | USCS Class                                                                                                         | Casing Diameter                                                                                           | Description<br>(See Pilot boring log for full geologic descriptions)                              | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings                                                      | Drilling Fluid                                                                                            |
|------------|------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 101        | (96.6 - 104.3)<br>1.16 mins/ft                 | SM                                                                                  |                                   | (96.6 - 104.3')<br>16.0" Steel Casing                                                                     | brown (5YR 6/4)                                                                                   | (100.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.                                                         |                                                                                                           |
| 102        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 103        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 104        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 105        | (104.3 - 117.3)<br>1.54 mins/ft                | ML                                                                                  |                                 | (104.3 - 117.3')<br>16.0" Steel Casing                                                                    | (107.0 - 109.5') Topock - Alluvium Deposits; Sandy silt with gravel (ML); brown (10YR 4/3)        | (104.3') Drill bit got plugged up, had to stop drilling, cut casing, trip out and clean out bit, then trip back in and weld on casing to resume drilling. | (104.3 - 117.3') 2597 gallons of water used; 3100 gallons of water recovered; 503 gallons of water gained |
| 106        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 107        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 108        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 109        |                                                | SM                                                                                  |                                 | (109.5 - 112.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); dark yellowish brown (10YR 4/4) | (110.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings. |                                                                                                                                                           |                                                                                                           |
| 110        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 111        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 112        |                                                | GM                                                                                  |                                 | (112.0 - 114.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); olive brown (2.5Y 4/3)          |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 113        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 114        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 115        | SM                                             |  | (114.0 - 117.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 116        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 117        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 118        | (117.3 - 137.0)<br>1.32 mins/ft                | SM                                                                                  |                                 | (117.3 - 137.0')<br>16.0" Steel Casing                                                                    | (117.0 - 123.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown (5YR 4/3) | (117.3 - 137.0') 2367 gallons of water used; 2200 gallons of water recovered; 167 gallons of water lost                                                   |                                                                                                           |
| 119        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
| 120        |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |
|            |                                                |                                                                                     |                                                                                                                    |                                                                                                           |                                                                                                   |                                                                                                                                                           |                                                                                                           |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                        | Description<br>(See Pilot boring log for full geologic descriptions)                                               | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                          |
|------------|------------------------------------------------|-----------|------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 121        |                                                | SM        |            |                                        |                                                                                                                    | (120.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                         |
| 122        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 123        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 124        |                                                | SM        |            |                                        | (123.0 - 126.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                         |
| 125        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 126        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 127        |                                                |           |            |                                        | (126.0 - 132.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                         |
| 128        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 129        | (117.3 - 137.0)<br>1.32 mins/ft                | SM        |            | (117.3 - 137.0')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      |                                                                                                         |
| 130        |                                                |           |            |                                        |                                                                                                                    | (130.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                         |
| 131        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 132        |                                                | GM        |            |                                        | (132.0 - 133.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                         |
| 133        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 134        |                                                |           |            |                                        | (133.0 - 137.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                         |
| 135        |                                                | SM        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 136        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 137        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 138        | (137.0 - 158.0)<br>1.77 mins/ft                | ML        |            | (137.0 - 158.0')<br>16.0" Steel Casing | (137.0 - 142.5') Topock - Alluvium Deposits; Sandy silt with gravel (ML); reddish brown / moderate brown (5YR 4/4) | (137.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    | (137.0 - 158.0') 2886 gallons of water used; 2600 gallons of water recovered; 286 gallons of water lost |
| 139        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 140        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

Sheet: 8 of 12

|                  |                   |                            |                                                                     |                                   |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|-----------------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: <u>IRZ-13D</u></b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                                   |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                           | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                          | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                         | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                                   | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:                   | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                                   |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                                   |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                        | Description<br>(See Pilot boring log for full geologic descriptions)                                               | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                             |
|------------|------------------------------------------------|-----------|------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 141        |                                                | ML        |            |                                        |                                                                                                                    | (140.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                            |
| 142        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 143        |                                                | SM        |            |                                        | (142.5 - 147.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                            |
| 144        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 145        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 146        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 147        |                                                | GM        |            |                                        | (147.0 - 149.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                            |
| 148        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 149        | (137.0 - 158.0)<br>1.77 mins/ft                | ML        |            | (137.0 - 158.0')<br>16.0" Steel Casing | (149.0 - 150.0') Topock - Alluvium Deposits; Sandy silt with gravel (ML); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                            |
| 150        |                                                | SM        |            |                                        | (150.0 - 152.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) | (150.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                            |
| 151        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 152        |                                                | GM        |            |                                        | (152.0 - 155.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                            |
| 153        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 154        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 155        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 156        |                                                | SM        |            |                                        | (155.0 - 161.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                            |
| 157        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 158        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |
| 159        | (158.0 - 177.9)<br>1.35 mins/ft                |           |            | (158.0 - 177.9')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      | (158.0 - 177.9') 2440 gallons of water used; 5000 gallons of water recovered; 2560 gallons of water gained |
| 160        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                            |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval



# Drilling Log

Sheet: 9 of 12

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | Boring No.: <u>IRZ-13D</u> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                        | Description<br>(See Pilot boring log for full geologic descriptions)                                               | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                          |
|------------|------------------------------------------------|-----------|------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 161        |                                                | SM        |            |                                        |                                                                                                                    | (160.0') Observed little Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.              |                                                                                                         |
| 162        |                                                |           |            |                                        | (161.0 - 171.0') Topock - Alluvium Deposits; Sandy silt with gravel (ML); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                         |
| 163        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 164        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 165        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 166        |                                                | ML        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 167        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 168        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 169        | (158.0 - 177.9)<br>1.35 mins/ft                |           |            | (158.0 - 177.9')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      |                                                                                                         |
| 170        |                                                |           |            |                                        |                                                                                                                    | (170.0') Observed some Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.                |                                                                                                         |
| 171        |                                                |           |            |                                        | (171.0 - 176.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); yellowish red / light brown (5YR 5/6)    |                                                                                                      |                                                                                                         |
| 172        |                                                | SM        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 173        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 174        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 175        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 176        |                                                |           |            |                                        | (176.0 - 187.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); yellowish red / light brown (5YR 5/6)    |                                                                                                      |                                                                                                         |
| 177        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 178        |                                                | SM        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |
| 179        | (177.9 - 197.7)<br>1.87 mins/ft                |           |            | (177.9 - 197.7')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      | (177.9 - 197.7') 1467 gallons of water used; 1150 gallons of water recovered; 317 gallons of water lost |
| 180        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                         |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                        | Description<br>(See Pilot boring log for full geologic descriptions)                                               | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                            |
|------------|------------------------------------------------|-----------|------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 181        |                                                |           |            |                                        |                                                                                                                    | (180.0') Observed some Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.                |                                                                                                           |
| 182        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 183        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 184        |                                                | SM        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 185        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 186        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 187        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 188        |                                                |           |            |                                        | (187.0 - 197.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) |                                                                                                      |                                                                                                           |
| 189        | (177.9 - 197.7')<br>1.87 mins/ft               |           |            | (177.9 - 197.7')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      |                                                                                                           |
| 190        |                                                |           |            |                                        |                                                                                                                    | (190.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                           |
| 191        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 192        |                                                | SM        |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 193        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 194        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 195        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 196        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 197        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |
| 198        |                                                |           |            |                                        | (197.0 - 202.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); weak red / pale reddish brown (10R 5/4)  |                                                                                                      |                                                                                                           |
| 199        | (197.7 - 217.5')<br>2.33 mins/ft               | SM        |            | (197.7 - 217.5')<br>16.0" Steel Casing |                                                                                                                    |                                                                                                      | (197.7 - 217.5') 1791 gallons of water used; 2100 gallons of water recovered; 309 gallons of water gained |
| 200        |                                                |           |            |                                        |                                                                                                                    |                                                                                                      |                                                                                                           |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                   |                            |                                                                     |                            |                         |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|----------------------------|-------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b> |                         |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                            |                         |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                    | PG&E                    |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                   | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                  | PG&E Topock, Needles,   |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           |                            | California              |
| Drilling Asst:   | A. & H. Amezcuita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           | Project Number:            | RC000753.0051           |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                            |                         |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                            |                         |

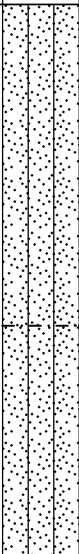
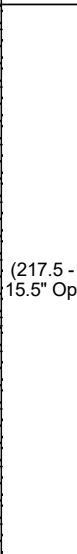
| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                        | Description<br>(See Pilot boring log for full geologic descriptions)                                                  | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                             |
|------------|------------------------------------------------|-----------|------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 201        |                                                | SM        |            |                                        |                                                                                                                       | (200.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                            |
| 202        |                                                |           |            |                                        | (202.0 - 209.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); light reddish brown / light brown (5YR 6/4) |                                                                                                      |                                                                                                            |
| 203        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 204        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 205        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 206        |                                                | SM        |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 207        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 208        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 209        | (197.7 - 217.5)<br>2.33 mins/ft                |           |            | (197.7 - 217.5')<br>16.0" Steel Casing |                                                                                                                       |                                                                                                      |                                                                                                            |
| 210        |                                                |           |            |                                        | (209.5 - 224.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); red (2.5YR 4/8)                             | (210.0') Observed trace amounts of Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand in drill cuttings.    |                                                                                                            |
| 211        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 212        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 213        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 214        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 215        |                                                | SM        |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 216        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 217        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      |                                                                                                            |
| 218        |                                                |           |            |                                        |                                                                                                                       |                                                                                                      | (217.5 - 227.2') 2031 gallons of water used; 4000 gallons of water recovered; 1969 gallons of water gained |
| 219        | (217.5 - 227.7)<br>1.96 mins/ft                |           |            | (217.5 - 227.7')<br>15.5" Open Hole    |                                                                                                                       |                                                                                                      |                                                                                                            |
| 220        |                                                |           |            |                                        |                                                                                                                       | (219.5 - 222.0') Rough drilling                                                                      |                                                                                                            |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

Sheet: 12 of 12

|                  |                   |                            |                                                                     |                               |                                  |
|------------------|-------------------|----------------------------|---------------------------------------------------------------------|-------------------------------|----------------------------------|
| Date Started:    | 06/23/2020        | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D</b>    |                                  |
| Date Completed:  | 06/27/2020        | Northing (NAD83):          | 2103309.58                                                          |                               |                                  |
| Drilling Co.:    | Cascade           | Easting (NAD83):           | 7615707.42                                                          | Client:                       | PG&E                             |
| Drilling Method: | Dual Rotary       | Total Depth:               | 227.7 ft bgs                                                        | Project:                      | Final GW Remedy Phase 1          |
| Drill Rig Type:  | Foremost DR-24HD  | Conductor Casing Diameter: | 18 inches                                                           | Location:                     | PG&E Topock, Needles, California |
| Driller Name:    | Jon Martinez      | Drill Casing Diameter:     | 16 inches                                                           | Project Number: RC000753.0051 |                                  |
| Drilling Asst:   | A. & H. Amezguita | Drill Bit:                 | 15 5/8" & 17 5/8" Tricone                                           |                               |                                  |
| Tool-Pusher:     | A. Lamon          | Depth to First Water:      | 27.6 ft bgs                                                         |                               |                                  |
| Rig Geologist:   | Ellen Redner      | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                               |                                  |

| Depth<br>(ft) | Drilling Run (ft)<br>and Average<br>Penetration Rate | USCS<br>Code | USCS<br>Class                                                                      | Casing<br>Diameter                                                                 | Description<br><br>(See Pilot boring log for<br>full geologic descriptions) | Drilling notes and observations confirming presence of<br>temporary backfill material in drill cuttings           | Drilling Fluid |                                                                                         |
|---------------|------------------------------------------------------|--------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------|
| 221           | (217.5 - 227.7)<br>1.96 mins/ft                      | SM           |  |  | (217.5 - 227.7')<br>15.5" Open Hole                                         | (220.0') Observed trace amounts of Wildcat Washed<br>Plastering Sand in drill cuttings.                           |                |                                                                                         |
| 222           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 223           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 224           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 225           |                                                      | SM           |                                                                                    |                                                                                    |                                                                             | (224.5 - 227.7') Topock -<br>Weathered Bedrock -<br>conglomerate; Silty sand with<br>gravel (SM); red (2.5YR 4/6) |                | (227.0') Observed trace amounts of Wildcat Washed<br>Plastering Sand in drill cuttings. |
| 226           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 227           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 228           | End of Boring at 227.7 ft bgs.                       |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 229           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 230           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 231           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 232           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 233           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 234           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 235           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 236           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 237           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 238           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 239           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |
| 240           |                                                      |              |                                                                                    |                                                                                    |                                                                             |                                                                                                                   |                |                                                                                         |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

Sheet: 1 of 4

|                  |                         |                            |                                                                     |                                      |                         |
|------------------|-------------------------|----------------------------|---------------------------------------------------------------------|--------------------------------------|-------------------------|
| Date Started:    | 03/23/2020              | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.:</b> <u>IRZ-13D-TB</u> |                         |
| Date Completed:  | 03/24/2020              | Northing (NAD83):          | 2103309.58                                                          |                                      |                         |
| Drilling Co.:    | Cascade                 | Easting (NAD83):           | 7615707.42                                                          | Client:                              | PG&E                    |
| Drilling Method: | Dual Rotary             | Total Depth:               | 61.7 ft bgs                                                         | Project:                             | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD        | Conductor Casing Diameter: | 18 inches                                                           | Location:                            | PG&E Topock, Needles,   |
| Driller Name:    | Josh Saldena            | Drill Casing Diameter:     | 16 inches                                                           |                                      | California              |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Drill Bit:                 | 15.5 & 17.5 Tricone                                                 | Project Number:                      | RC000753.0051           |
| Tool-Pusher:     | Arnold Lamon            | Depth to First Water:      | 27.6 ft bgs                                                         |                                      |                         |
| Rig Geologist:   | David Cornell           | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                                      |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                      | Description<br>(See Pilot boring log for full geologic descriptions)                            | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings       | Drilling Fluid                                                                                         |
|------------|------------------------------------------------|-----------|------------|--------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1          |                                                |           |            |                                      | (0.0 - 16.5') Topock - Fill; Poorly graded sand with silt (SP); dark yellowish brown (10YR 4/4) |                                                                                                            | (0.0 - 18.0') 1080 gallons of water used; 480 gallons of water recovered; 600 gallons of water lost    |
| 2          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 3          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 4          |                                                |           |            |                                      |                                                                                                 | (3.0') Observed Wildcat Washed Plastering Sand while hand clearing to identify location of pilot borehole. |                                                                                                        |
| 5          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 6          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 7          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 8          |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 9          | (0.0 - 18.0)<br>1.11 mins/ft                   | SP        |            | (0.0 - 18.0')<br>18.0" Steel Casing  |                                                                                                 |                                                                                                            |                                                                                                        |
| 10         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 11         |                                                |           |            |                                      |                                                                                                 | (10.0') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in return cuttings.                            |                                                                                                        |
| 12         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 13         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 14         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 15         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 16         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 17         |                                                |           |            |                                      | (16.5 - 24.5') Topock - Fill; Silty sand (SM); strong brown (7.5YR 4/6)                         |                                                                                                            |                                                                                                        |
| 18         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |
| 19         | (18.0 - 38.0)<br>2.45 mins/ft                  | SM        |            | (18.0 - 38.0')<br>18.0" Steel Casing |                                                                                                 |                                                                                                            | (18.0 - 38.0') 2340 gallons of water used; 1300 gallons of water recovered; 1040 gallons of water lost |
| 20         |                                                |           |            |                                      |                                                                                                 |                                                                                                            |                                                                                                        |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval

IRZ DRILLING LOG\_PG&amp;E TOPOCK C:\USERS\SMC\GRAND\DOCUMENTS\PG&amp;E TOPOCK\DRIFT BORING LOGS\GINT FILES\11.30.20\TOPOCK DATABASE FOR PLOG.GPJ TOPOCK DATA TEMPLATE FOR PLOG.GDT 12/08/20 20:24

# Drilling Log

Sheet: 2 of 4

|                  |                         |                            |                                                                     |                                      |                         |
|------------------|-------------------------|----------------------------|---------------------------------------------------------------------|--------------------------------------|-------------------------|
| Date Started:    | 03/23/2020              | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.:</b> <u>IRZ-13D-TB</u> |                         |
| Date Completed:  | 03/24/2020              | Northing (NAD83):          | 2103309.58                                                          |                                      |                         |
| Drilling Co.:    | Cascade                 | Easting (NAD83):           | 7615707.42                                                          | Client:                              | PG&E                    |
| Drilling Method: | Dual Rotary             | Total Depth:               | 61.7 ft bgs                                                         | Project:                             | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD        | Conductor Casing Diameter: | 18 inches                                                           | Location:                            | PG&E Topock, Needles,   |
| Driller Name:    | Josh Saldena            | Drill Casing Diameter:     | 16 inches                                                           |                                      | California              |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Drill Bit:                 | 15.5 & 17.5 Tricone                                                 | Project Number:                      | RC000753.0051           |
| Tool-Pusher:     | Arnold Lamon            | Depth to First Water:      | 27.6 ft bgs                                                         |                                      |                         |
| Rig Geologist:   | David Cornell           | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                                      |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                      | Description<br>(See Pilot boring log for full geologic descriptions)                       | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings    | Drilling Fluid                                                                                        |
|------------|------------------------------------------------|-----------|------------|--------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 21         |                                                |           |            |                                      |                                                                                            | (20.0') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in drill cuttings.                          |                                                                                                       |
| 22         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 23         |                                                | SM        |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 24         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 25         |                                                |           |            |                                      | (24.5 - 27.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); pale red (10R 6/2) |                                                                                                         |                                                                                                       |
| 26         |                                                | SM        |            |                                      |                                                                                            | (26.0 - 38.0') Observed gravel in drill cuttings                                                        |                                                                                                       |
| 27         |                                                |           |            |                                      | (27.0 - 44.5') Topock - Alluvium Deposits; Silty sand (SM); pale brown (10YR 6/3)          |                                                                                                         |                                                                                                       |
| 28         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 29         | (18.0 - 38.0)<br>2.45 mins/ft                  |           |            | (18.0 - 38.0')<br>18.0" Steel Casing |                                                                                            | (30.0') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in drill cuttings.                          |                                                                                                       |
| 30         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 31         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 32         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 33         |                                                | SM        |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 34         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 35         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 36         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 37         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 38         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |
| 39         | (38.0 - 53.0)<br>4.43 mins/ft                  |           |            | (38.0 - 53.0')<br>18.0" Steel Casing |                                                                                            | (38.0 - 40.0') Bit plugging off, not getting returns. Installed turnaround on drill string and resumed. | (38.0 - 53.0') 4500 gallons of water used; 3850 gallons of water recovered; 650 gallons of water lost |
| 40         |                                                |           |            |                                      |                                                                                            |                                                                                                         |                                                                                                       |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval



|                  |                         |                            |                                                                     |                                      |                         |
|------------------|-------------------------|----------------------------|---------------------------------------------------------------------|--------------------------------------|-------------------------|
| Date Started:    | 03/23/2020              | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.:</b> <u>IRZ-13D-TB</u> |                         |
| Date Completed:  | 03/24/2020              | Northing (NAD83):          | 2103309.58                                                          |                                      |                         |
| Drilling Co.:    | Cascade                 | Easting (NAD83):           | 7615707.42                                                          | Client:                              | PG&E                    |
| Drilling Method: | Dual Rotary             | Total Depth:               | 61.7 ft bgs                                                         | Project:                             | Final GW Remedy Phase 1 |
| Drill Rig Type:  | Foremost DR-24HD        | Conductor Casing Diameter: | 18 inches                                                           | Location:                            | PG&E Topock, Needles,   |
| Driller Name:    | Josh Saldena            | Drill Casing Diameter:     | 16 inches                                                           |                                      | California              |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Drill Bit:                 | 15.5 & 17.5 Tricone                                                 | Project Number:                      | RC000753.0051           |
| Tool-Pusher:     | Arnold Lamon            | Depth to First Water:      | 27.6 ft bgs                                                         |                                      |                         |
| Rig Geologist:   | David Cornell           | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                                      |                         |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                      | Description<br>(See Pilot boring log for full geologic descriptions)                                     | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings | Drilling Fluid                                                                                       |
|------------|------------------------------------------------|-----------|------------|--------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 41         | (38.0 - 53.0)<br>4.43 mins/ft                  | SM        |            | (38.0 - 53.0')<br>18.0" Steel Casing |                                                                                                          | (40.1') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in drill cuttings.                       |                                                                                                      |
| 42         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 43         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 44         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 45         | (38.0 - 53.0)<br>4.43 mins/ft                  | SM        |            | (38.0 - 53.0')<br>18.0" Steel Casing | (44.5 - 46.0') Topock - Alluvium Deposits; Sandy silt with gravel (SM); brown (10YR 4/3)                 |                                                                                                      |                                                                                                      |
| 46         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 47         |                                                |           |            |                                      | (46.0 - 47.0') Topock - Alluvium Deposits; Sandy silt (ML); brown (10YR 4/3)                             |                                                                                                      |                                                                                                      |
| 48         |                                                |           |            |                                      | (47.0 - 53.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); pink (7.5YR 7/4)                 |                                                                                                      |                                                                                                      |
| 49         | (38.0 - 53.0)<br>4.43 mins/ft                  | SM        |            | (38.0 - 53.0')<br>18.0" Steel Casing |                                                                                                          |                                                                                                      |                                                                                                      |
| 50         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 51         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 52         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 53         | (53.0 - 59.0)<br>5.39 mins/ft                  | SM        |            | (53.0 - 59.0')<br>18.0" Steel Casing |                                                                                                          | (50.0') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in drill cuttings.                       | (53.0 - 59.0') 1260 gallons of water used; 960 gallons of water recovered; 300 gallons of water lost |
| 54         |                                                |           |            |                                      | (53.0 - 57.0') Topock - Alluvium Deposits; Silty sand (SM); light red (2.5YR 6/6)                        |                                                                                                      |                                                                                                      |
| 55         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 56         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 57         | (53.0 - 59.0)<br>5.39 mins/ft                  | SM        |            | (53.0 - 59.0')<br>18.0" Steel Casing | (57.0 - 61.7') Topock - Alluvium Deposits; Silty sand (SM); pinkish gray / grayish orange pink (5YR 7/2) |                                                                                                      | (59.0 - 61.7') 360 gallons of water used; 0 gallons of water                                         |
| 58         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 59         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
| 60         |                                                |           |            |                                      |                                                                                                          |                                                                                                      |                                                                                                      |
|            | (59.0 - 61.7)<br>7.32 mins/ft                  |           |            | (59.0 - 61.7')<br>18.0" Steel Casing |                                                                                                          |                                                                                                      |                                                                                                      |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval

# Drilling Log

Sheet: 4 of 4

|                  |                         |                            |                                                                     |                               |                                  |
|------------------|-------------------------|----------------------------|---------------------------------------------------------------------|-------------------------------|----------------------------------|
| Date Started:    | 03/23/2020              | Surface Elevation:         | 481.46 ft amsl                                                      | <b>Boring No.: IRZ-13D-TB</b> |                                  |
| Date Completed:  | 03/24/2020              | Northing (NAD83):          | 2103309.58                                                          |                               |                                  |
| Drilling Co.:    | Cascade                 | Easting (NAD83):           | 7615707.42                                                          | Client:                       | PG&E                             |
| Drilling Method: | Dual Rotary             | Total Depth:               | 61.7 ft bgs                                                         | Project:                      | Final GW Remedy Phase 1          |
| Drill Rig Type:  | Foremost DR-24HD        | Conductor Casing Diameter: | 18 inches                                                           | Location:                     | PG&E Topock, Needles, California |
| Driller Name:    | Josh Saldena            | Drill Casing Diameter:     | 16 inches                                                           | Project Number:               | RC000753.0051                    |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Drill Bit:                 | 15.5 & 17.5 Tricone                                                 |                               |                                  |
| Tool-Pusher:     | Arnold Lamon            | Depth to First Water:      | 27.6 ft bgs                                                         |                               |                                  |
| Rig Geologist:   | David Cornell           | Converted to Well:         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                               |                                  |

| Depth (ft) | Drilling Run (ft) and Average Penetration Rate | USCS Code | USCS Class | Casing Diameter                     | Description<br>(See Pilot boring log for full geologic descriptions) | Drilling notes and observations confirming presence of temporary backfill material in drill cuttings                                                                   | Drilling Fluid                       |
|------------|------------------------------------------------|-----------|------------|-------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 61         | (59.0 - 61.7)<br>7.32 mins/ft                  | SM        |            | (59.0 - 61.7)<br>18.0" Steel Casing |                                                                      | (60.0 - 61.7') Rough drilling, possible boulder<br>(60.1') Cemex #2/12 Mesh (12x20) Lapis Lustre Sand observed in drill cuttings. Bit plugged off not getting returns. | recovered; 360 gallons of water lost |
| 62         |                                                |           |            |                                     | End of Boring at 61.7 ft bgs.                                        | (61.7') Drilling was stopped and the borehole was partially temporarily backfilled again to 61.7 ft bgs due to a temporary project shutdown.                           |                                      |
| 63         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 64         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 65         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 66         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 67         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 68         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 69         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 70         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 71         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 72         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 73         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 74         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 75         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 76         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 77         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 78         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 79         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |
| 80         |                                                |           |            |                                     |                                                                      |                                                                                                                                                                        |                                      |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 03/27/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13D-TB                        |
| Date Completed:  | 03/28/2020              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Dual Rotary             | Total Depth:          | 61.7 ft bgs    | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Josh Saldena            | Borehole Diameter:    | 16-18 inches   | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | David Cornell           | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation | USCS Code | USCS Class | Well Construction                                      | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|--------------------|-----------|------------|--------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 1          |                       |                    |           |            | (0.0 - 0.5') Steel Plate                               |                             | Note: Steel plate BMPs in place                                                                |
| 2          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 3          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 4          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 5          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 6          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 7          |                       |                    |           |            |                                                        |                             |                                                                                                |
| 8          |                       | Topock - Fill      | SP        |            | (0.5 - 17.0') Cemex #60 Mesh (40x70) Lapis Lustre Sand | (0.5 - 17.0') 60.1 bags     | (0.5 - 17.0') 66 bags (110%)<br>Note: Surface sand seal                                        |
| 9          |                       |                    |           |            | (0.0 - 18.0') 18.0" Borehole                           |                             |                                                                                                |
| 10         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 11         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 12         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 13         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 14         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 15         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 16         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 17         |                       |                    |           |            |                                                        |                             |                                                                                                |
| 18         |                       | Topock - Fill      | SM        |            | (17.0 - 36.4') Cemex 30 Mesh (30x70) Lapis Lustre Sand | (17.0 - 36.4') 68.5 bags    | (17.0 - 36.4') 74 bags (108%)<br>Note: Backfill sand                                           |
| 19         |                       |                    |           |            | (18.0 - 38.0') 18.0" Borehole                          |                             |                                                                                                |
| 20         |                       |                    |           |            |                                                        |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 03/27/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13D-TB                        |
| Date Completed:  | 03/28/2020              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Dual Rotary             | Total Depth:          | 61.7 ft bgs    | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Josh Saldena            | Borehole Diameter:    | 16-18 inches   | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | David Cornell           | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 21         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 22         |                                                      | Topock - Fill              | SM        |            |                                                                  |                             |                                                                                                |
| 23         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 24         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 25         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 26         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 27         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 28         |                                                      |                            |           |            | (17.0 - 36.4')<br>Cemex 30 Mesh<br>(30x70) Lapis Lustre Sand     | (17.0 - 36.4')<br>68.5 bags | (17.0 - 36.4') 74 bags (108%)<br>Note: Backfill sand                                           |
| 29         |                                                      |                            |           |            | (18.0 - 38.0')<br>18.0" Borehole                                 |                             |                                                                                                |
| 30         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 31         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 32         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 33         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 34         | IRZ-13-VAS-32-37<br>(220 ppb)<br>11/17/2018<br>15:45 | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 35         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 36         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 37         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |
| 38         |                                                      |                            |           |            | (36.4 - 46.0')<br>Cemex # 2/16 Mesh<br>(16x30) Lapis Lustre Sand | (36.4 - 46.0')<br>33.9 bags | (36.4 - 46.0') 35 bags (103%)<br>Note: Backfill sand                                           |
| 39         |                                                      |                            |           |            | (38.0 - 53.0')<br>18.0" Borehole                                 |                             |                                                                                                |
| 40         |                                                      |                            |           |            |                                                                  |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 03/27/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13D-TB                        |
| Date Completed:  | 03/28/2020              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Dual Rotary             | Total Depth:          | 61.7 ft bgs    | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Josh Saldena            | Borehole Diameter:    | 16-18 inches   | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | David Cornell           | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                 | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 41         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 42         |                                                       | Topock - Alluvium Deposits | SM        |            | (36.4 - 46.0')<br>Cemex # 2/16 Mesh<br>(16x30) Lapis Lustre Sand | (36.4 - 46.0')<br>33.9 bags | (36.4 - 46.0') 35 bags (103%)<br>Note: Backfill sand                                           |
| 43         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 44         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 45         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 46         |                                                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                             |                                                                                                |
| 47         |                                                       |                            |           |            | (38.0 - 53.0')<br>18.0" Borehole                                 |                             |                                                                                                |
| 48         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 49         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 50         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 51         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 52         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 53         |                                                       |                            |           |            | (46.0 - 61.4')<br>Cemex #8 Mesh<br>(8x16) Lapis Lustre Sand      | (46.0 - 61.4')<br>54.4 bags | (46.0 - 61.4') 55 bags (101%)<br>Note: Backfill sand                                           |
| 54         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 55         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 56         |                                                       |                            |           |            | (53.0 - 59.0')<br>18.0" Borehole                                 |                             |                                                                                                |
| 57         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 58         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018 11:50 | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 59         |                                                       |                            |           |            |                                                                  |                             |                                                                                                |
| 60         |                                                       |                            |           |            | (59.0 - 61.7')<br>18.0" Borehole                                 |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 03/27/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13D-TB                        |
| Date Completed:  | 03/28/2020              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Dual Rotary             | Total Depth:          | 61.7 ft bgs    | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Josh Saldena            | Borehole Diameter:    | 16-18 inches   | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | P. Gutierrez / S. Jorge | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | David Cornell           | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                 | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                                 |                                                                                   |                                  | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-------------------------------------------------------|----------------------------|-----------|------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 61         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018 11:50 | Topock - Alluvium Deposits | SM        |            | (46.0 - 61.4')<br>Cemex #8 Mesh (8x16) Lapis Lustre Sand<br>(61.4 - 61.7') Slough |  | (59.0 - 61.7')<br>18.0" Borehole | (46.0 - 61.4')<br>54.4 bags | (46.0 - 61.4') 55 bags (101%)<br>Note: Backfill sand                                           |
| 62         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             | Note: Material that settled out from the water column in the casing.                           |
| 63         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 64         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 65         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 66         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 67         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 68         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 69         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 70         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 71         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 72         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 73         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 74         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 75         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 76         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 77         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 78         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 79         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |
| 80         |                                                       |                            |           |            |                                                                                   |                                                                                   |                                  |                             |                                                                                                |

Final 1217120

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, TB = Temporary Backfill of first attempt of Dual Rotary drilling; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole



|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation | USCS Code | USCS Class | Well Construction                                          | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                                            |
|------------|-----------------------|--------------------|-----------|------------|------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          |                       |                    |           |            | (0.0 - 0.5') Steel Plate                                   |                             | Note: Steel plate BMPs in place                                                                                                                                           |
| 2          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 3          |                       |                    |           |            | (0.5 - 5.0') Wildcat Washed Plastering Sand                | (0.5 - 5.0') 9.9 bags       | (0.5 - 5.0') 5 bags (51%)<br>Note: Surface sand seal, used <20% of the calculated volume due to loose dredge sands collapsing during removal of 12 inch conductor casing. |
| 4          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 5          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 6          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 7          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 8          |                       | Topock - Fill      | SP        |            |                                                            |                             |                                                                                                                                                                           |
| 9          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 10         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 11         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 12         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 13         |                       |                    |           |            | (5.0 - 217.0') Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (5.0 - 217.0') 93.6 bags    | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                                                                                                     |
| 14         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 15         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 16         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 17         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 18         |                       | Topock - Fill      | SM        |            |                                                            |                             |                                                                                                                                                                           |
| 19         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 20         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 21         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 22         |                                                      | Topock - Fill              | SM        |            |                                                                  |                               |                                                                                                |
| 23         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 24         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 25         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 26         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 27         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 28         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 29         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 30         |                                                      |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 31         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 32         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 33         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 34         | IRZ-13-VAS-32-37<br>(220 ppb)<br>11/17/2018<br>15:45 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 35         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 36         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 37         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 38         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 39         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 40         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                 | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 41         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 42         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 43         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 44         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 45         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 46         |                                                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 47         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 48         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 49         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 50         |                                                       | Topock - Alluvium Deposits | SM        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 51         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 52         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 53         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 54         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 55         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 56         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 57         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 58         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018 11:50 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 59         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 60         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|----------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 61         | IRZ-13-VAS-57-62<br>( $<0.17$ U ppb)<br>11/18/2018 11:50 |                            |           |            |                                                                  |                               |                                                                                                |
| 62         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 63         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 64         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 65         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 66         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 67         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 68         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 69         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 70         |                                                          |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags                                                                    |
| 71         |                                                          |                            |           |            |                                                                  |                               | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 72         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 73         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 74         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 75         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 76         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 77         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 78         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 79         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 80         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |

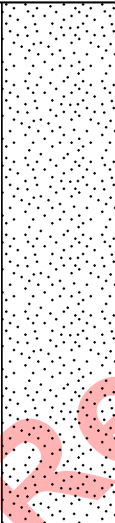
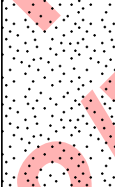
Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 81         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 82         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 83         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 84         |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 85         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 86         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 87         |                       | Topock - Alluvium Deposits |           |            |                                                                  |                             |                                                                                                |
| 88         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 89         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 90         |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand |                             |                                                                                                |
| 91         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 92         |                       | Topock - Alluvium Deposits | GM        |            |                                                                  |                             |                                                                                                |
| 93         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 94         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 95         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 96         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 97         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 98         |                       | Topock - Alluvium Deposits | GP-GM     |            |                                                                  |                             |                                                                                                |
| 99         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 100        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                      | Geologic Formation         | USCS Code | USCS Class                                                                         | Well Construction                                                                  |  |  | Calculated Material Volumes                                      | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |                             |                                                       |
|------------|------------------------------------------------------------|----------------------------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------|
| 101        | IRZ-13-VAS-102-107<br>( $<0.17$ U ppb)<br>11/19/2018 09:30 | Topock - Alluvium Deposits | SM        |   |   |  |  |                                                                  |                                                                                                |                             |                                                       |
| 102        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 103        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 104        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 105        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 106        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 107        |                                                            | Topock - Alluvium Deposits | ML        |  |  |  |  | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole                                                                  | (5.0 - 217.0')<br>93.6 bags | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand |
| 108        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 109        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 110        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 111        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 112        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 113        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 114        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 115        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 116        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 117        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 118        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 119        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |
| 120        |                                                            |                            |           |                                                                                    |                                                                                    |  |  |                                                                  |                                                                                                |                             |                                                       |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole



|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | <b>Well ID: IRZ-13 Pilot</b>               |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 121        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 122        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 123        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 124        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 125        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 126        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 127        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 128        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 129        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 130        |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 131        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 132        |                       | Topock - Alluvium Deposits | GM        |            |                                                                  |                               |                                                                                                |
| 133        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 134        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 135        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 136        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 137        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 138        |                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 139        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 140        |                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                      | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 141        |                                                            | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 142        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 143        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 144        | IRZ-13-VAS-142-147<br>( $<0.17$ U ppb)<br>11/19/2018 14:35 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 145        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 146        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 147        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 148        |                                                            | Topock - Alluvium Deposits | GM        |            |                                                                  |                               |                                                                                                |
| 149        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 150        |                                                            | Topock - Alluvium Deposits | ML        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags                                                                    |
| 151        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 152        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 153        |                                                            | Topock - Alluvium Deposits | GM        |            |                                                                  |                               |                                                                                                |
| 154        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 155        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 156        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 157        |                                                            | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 158        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 159        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |
| 160        |                                                            |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 161        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 162        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 163        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 164        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 165        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 166        |                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 167        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 168        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 169        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 170        |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 171        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 172        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 173        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 174        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 175        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 176        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 177        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 178        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 179        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 180        |                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|----------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 181        | IRZ-13-VAS-180-185<br>(190 ppb)<br>11/27/2018<br>12:35   | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 182        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 183        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 184        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 185        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 186        |                                                          | Topock - Alluvium Deposits | SM        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags                                                                    |
| 187        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 188        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 189        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 190        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 191        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 192        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 193        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 194        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 195        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 196        |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 197        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 198        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 199        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 200        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
|            | IRZ-13-VAS-197-202<br>(<0.83 ppb)<br>11/28/2018<br>11:28 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                           | Geologic Formation         | USCS Code | USCS Class | Well Construction                                             | Calculated Material Volumes  | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                             |
|------------|-------------------------------------------------|----------------------------|-----------|------------|---------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 201        | IRZ-13-VAS-197-202 (<0.83 ppb) 11/28/2018 11:28 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 202        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 203        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 204        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 205        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 206        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 207        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 208        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 209        |                                                 |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (5.0 - 217.0')<br>93.6 bags  | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                                                                      |
| 210        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 211        |                                                 |                            |           |            | (8.0 - 243.0')<br>6" Borehole                                 |                              |                                                                                                                                            |
| 212        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 213        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 214        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 215        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 216        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 217        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 218        |                                                 |                            |           |            | (217.0 - 227.0')<br>Wildcat Washed Plastering Sand            | (217.0 - 227.0')<br>2.8 bags | (217.0 - 227.0') 4 bags (143%)<br>Note: Indicator sand, used >20% of the calculated volume due to potential voids forming during drilling. |
| 219        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 220        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                             | Geologic Formation                        | USCS Code | USCS Class | Well Construction                                              | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                               |
|------------|---------------------------------------------------|-------------------------------------------|-----------|------------|----------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 221        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 222        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 223        |                                                   | Topock - Alluvium Deposits                | SM        |            | (217.0 - 227.0') Wildcat Washed Plastering Sand                | (217.0 - 227.0') 2.8 bags     | (217.0 - 227.0') 4 bags (143%)<br>Note: Indicator sand, used >20% of the calculated volume due to potential voids forming during drilling.                   |
| 224        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 225        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 226        | IRZ-13-VAS-224-229 (<0.83 ppb) 11/28/2018 16:00   | Topock - Weathered Bedrock - conglomerate | SM        |            |                                                                |                               |                                                                                                                                                              |
| 227        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 228        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 229        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 230        |                                                   |                                           |           |            | (227.0 - 233.0') Bentonite seal chips<br>Puregold medium chips | (227.0 - 233.0') 1.7 bags     | (227.0 - 233.0') 2 bags (118%)<br>Note: Decommissioned rathole                                                                                               |
| 231        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 232        |                                                   | Topock - Weathered Bedrock - conglomerate | ML        |            |                                                                |                               |                                                                                                                                                              |
| 233        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 234        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 235        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 236        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 237        |                                                   |                                           |           |            | (233.0 - 243.0') 100% Portland Cement Type I, II and V         | (233.0 - 243.0') 23.5 gallons | (233.0 - 243.0') 20 gallons (85%)<br>Note: Decommissioned rathole, grouted to 228 ft in casing, let set up over night and cleaned out casing to 233 ft. bgs. |
| 238        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 239        | IRZ-13-VAS-237-242 (<0.17 U ppb) 11/29/2018 13:20 | Topock - Weathered Bedrock - conglomerate | SM        |            |                                                                |                               |                                                                                                                                                              |
| 240        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole



|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2018              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                   | Geologic Formation                        | USCS Code | USCS Class | Well Construction                                         |                               | Calculated Material Volumes      | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                               |
|------------|---------------------------------------------------------|-------------------------------------------|-----------|------------|-----------------------------------------------------------|-------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 241        | IRZ-13-VAS-237-242<br>(<0.17 U ppb)<br>11/29/2018 13:20 | Topock - Weathered Bedrock - conglomerate | SM        |            | (233.0 - 243.0')<br>100% Portland Cement Type I, II and V | (8.0 - 243.0')<br>6" Borehole | (233.0 - 243.0')<br>23.5 gallons | (233.0 - 243.0') 20 gallons (85%)<br>Note: Decommissioned rathole, grouted to 228 ft in casing, let set up over night and cleaned out casing to 233 ft. bgs. |
| 242        |                                                         | Topock - Competent Bedrock - conglomerate |           |            |                                                           |                               |                                  |                                                                                                                                                              |
| 243        |                                                         |                                           |           |            |                                                           |                               |                                  |                                                                                                                                                              |

Final - Revised 12/7/20

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation | USCS Code | USCS Class | Well Construction                                          | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                                            |
|------------|-----------------------|--------------------|-----------|------------|------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          |                       |                    |           |            | (0.0 - 0.5') Steel Plate                                   |                             | Note: Steel plate BMPs in place                                                                                                                                           |
| 2          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 3          |                       |                    |           |            | (0.5 - 5.0') Wildcat Washed Plastering Sand                | (0.5 - 5.0') 9.9 bags       | (0.5 - 5.0') 5 bags (51%)<br>Note: Surface sand seal, used <20% of the calculated volume due to loose dredge sands collapsing during removal of 12 inch conductor casing. |
| 4          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 5          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 6          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 7          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 8          |                       | Topock - Fill      | SP        |            |                                                            |                             |                                                                                                                                                                           |
| 9          |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 10         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 11         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 12         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 13         |                       |                    |           |            | (5.0 - 217.0') Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (5.0 - 217.0') 93.6 bags    | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                                                                                                     |
| 14         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 15         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 16         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 17         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 18         |                       | Topock - Fill      | SM        |            |                                                            |                             |                                                                                                                                                                           |
| 19         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |
| 20         |                       |                    |           |            |                                                            |                             |                                                                                                                                                                           |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 21         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 22         |                                                      | Topock - Fill              | SM        |            |                                                                  |                               |                                                                                                |
| 23         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 24         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 25         |                                                      | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 26         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 27         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 28         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 29         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 30         |                                                      |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 31         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 32         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 33         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 34         | IRZ-13-VAS-32-37<br>(220 ppb)<br>11/17/2018<br>15:45 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 35         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 36         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 37         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 38         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 39         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |
| 40         |                                                      |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                 | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 41         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 42         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 43         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 44         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 45         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 46         |                                                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 47         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 48         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 49         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 50         |                                                       | Topock - Alluvium Deposits | SM        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 51         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 52         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 53         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 54         |                                                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 55         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 56         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 57         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 58         | IRZ-13-VAS-57-62<br>(<0.17 U ppb)<br>11/18/2018 11:50 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 59         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |
| 60         |                                                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|----------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 61         | IRZ-13-VAS-57-62<br>( $<0.17$ U ppb)<br>11/18/2018 11:50 |                            |           |            |                                                                  |                               |                                                                                                |
| 62         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 63         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 64         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 65         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 66         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 67         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 68         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 69         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 70         |                                                          |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags                                                                    |
| 71         |                                                          |                            |           |            |                                                                  |                               | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 72         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 73         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 74         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 75         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 76         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 77         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 78         |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 79         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 80         |                                                          |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 81         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 82         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 83         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 84         |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |
| 85         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 86         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 87         |                       | Topock - Alluvium Deposits |           |            |                                                                  |                             |                                                                                                |
| 88         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 89         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 90         |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand |                             |                                                                                                |
| 91         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 92         |                       | Topock - Alluvium Deposits | GM        |            |                                                                  |                             |                                                                                                |
| 93         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 94         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 95         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 96         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 97         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 98         |                       | Topock - Alluvium Deposits | GP-GM     |            |                                                                  |                             |                                                                                                |
| 99         |                       |                            |           |            |                                                                  |                             |                                                                                                |
| 100        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole



|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                      | Geologic Formation         | USCS Code | USCS Class | Well Construction |                                                               |                               | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|------------------------------------------------------------|----------------------------|-----------|------------|-------------------|---------------------------------------------------------------|-------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 101        | IRZ-13-VAS-102-107<br>( $<0.17$ U ppb)<br>11/19/2018 09:30 | Topock - Alluvium Deposits | SM        |            |                   | (5.0 - 217.0')<br>Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 102        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 103        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 104        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 105        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 106        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 107        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 108        |                                                            | Topock - Alluvium Deposits | ML        |            |                   |                                                               |                               |                             |                                                                                                |
| 109        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 110        |                                                            | Topock - Alluvium Deposits | SM        |            |                   |                                                               |                               |                             |                                                                                                |
| 111        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 112        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 113        |                                                            | Topock - Alluvium Deposits | GM        |            |                   |                                                               |                               |                             |                                                                                                |
| 114        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 115        |                                                            | Topock - Alluvium Deposits | SM        |            |                   |                                                               |                               |                             |                                                                                                |
| 116        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 117        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 118        |                                                            | Topock - Alluvium Deposits | SM        |            |                   |                                                               |                               |                             |                                                                                                |
| 119        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |
| 120        |                                                            |                            |           |            |                   |                                                               |                               |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 121        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 122        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 123        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 124        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 125        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 126        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 127        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 128        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 129        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 130        |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0')<br>93.6 bags                                                                    |
| 131        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 132        |                       | Topock - Alluvium Deposits | GM        |            |                                                                  |                               |                                                                                                |
| 133        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 134        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 135        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 136        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 137        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 138        |                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 139        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 140        |                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                             | Geologic Formation         | USCS Code | USCS Class | Well Construction                                             | Calculated Material Volumes | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|---------------------------------------------------|----------------------------|-----------|------------|---------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| 141        |                                                   | Topock - Alluvium Deposits | ML        |            |                                                               |                             |                                                                                                |
| 142        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 143        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 144        | IRZ-13-VAS-142-147 (<0.17 U ppb) 11/19/2018 14:35 | Topock - Alluvium Deposits | SM        |            |                                                               |                             |                                                                                                |
| 145        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 146        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 147        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 148        |                                                   | Topock - Alluvium Deposits | GM        |            |                                                               |                             |                                                                                                |
| 149        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 150        |                                                   | Topock - Alluvium Deposits | ML        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (5.0 - 217.0')<br>93.6 bags | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 151        |                                                   | Topock - Alluvium Deposits | SM        |            |                                                               |                             |                                                                                                |
| 152        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 153        |                                                   | Topock - Alluvium Deposits | GM        |            |                                                               |                             |                                                                                                |
| 154        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 155        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 156        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 157        |                                                   | Topock - Alluvium Deposits | SM        |            |                                                               |                             |                                                                                                |
| 158        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 159        |                                                   |                            |           |            |                                                               |                             |                                                                                                |
| 160        |                                                   |                            |           |            |                                                               |                             |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|-----------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 161        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 162        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 163        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 164        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 165        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 166        |                       | Topock - Alluvium Deposits | ML        |            |                                                                  |                               |                                                                                                |
| 167        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 168        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 169        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 170        |                       |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 171        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 172        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 173        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 174        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 175        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 176        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 177        |                       | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 178        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 179        |                       |                            |           |            |                                                                  |                               |                                                                                                |
| 180        |                       |                            |           |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                    | Geologic Formation         | USCS Code | USCS Class | Well Construction                                                | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume |
|------------|----------------------------------------------------------|----------------------------|-----------|------------|------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| 181        | IRZ-13-VAS-180-185<br>(190 ppb)<br>11/27/2018<br>12:35   | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 182        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 183        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 184        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 185        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 186        |                                                          | Topock - Alluvium Deposits | SM        |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh<br>(12x20) Lapis Lustre Sand | (8.0 - 243.0')<br>6" Borehole | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                          |
| 187        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 188        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 189        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 190        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 191        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 192        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 193        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 194        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 195        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 196        |                                                          | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |
| 197        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 198        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 199        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
| 200        |                                                          |                            |           |            |                                                                  |                               |                                                                                                |
|            | IRZ-13-VAS-197-202<br>(<0.83 ppb)<br>11/28/2018<br>11:28 | Topock - Alluvium Deposits | SM        |            |                                                                  |                               |                                                                                                |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                           | Geologic Formation         | USCS Code | USCS Class | Well Construction                                             | Calculated Material Volumes  | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                             |
|------------|-------------------------------------------------|----------------------------|-----------|------------|---------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 201        | IRZ-13-VAS-197-202 (<0.83 ppb) 11/28/2018 11:28 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 202        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 203        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 204        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 205        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 206        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 207        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 208        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 209        |                                                 |                            |           |            | (5.0 - 217.0')<br>Cemex # 2/12 Mesh (12x20) Lapis Lustre Sand | (5.0 - 217.0')<br>93.6 bags  | (5.0 - 217.0') 100 bags (107%)<br>Note: Backfill sand                                                                                      |
| 210        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 211        |                                                 |                            |           |            | (8.0 - 243.0')<br>6" Borehole                                 |                              |                                                                                                                                            |
| 212        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 213        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 214        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 215        |                                                 | Topock - Alluvium Deposits | SM        |            |                                                               |                              |                                                                                                                                            |
| 216        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 217        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 218        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |
| 219        |                                                 |                            |           |            | (217.0 - 227.0')<br>Wildcat Washed Plastering Sand            | (217.0 - 227.0')<br>2.8 bags | (217.0 - 227.0') 4 bags (143%)<br>Note: Indicator sand, used >20% of the calculated volume due to potential voids forming during drilling. |
| 220        |                                                 |                            |           |            |                                                               |                              |                                                                                                                                            |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole



|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                             | Geologic Formation                        | USCS Code | USCS Class | Well Construction                                              | Calculated Material Volumes   | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                               |
|------------|---------------------------------------------------|-------------------------------------------|-----------|------------|----------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 221        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 222        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 223        |                                                   | Topock - Alluvium Deposits                | SM        |            |                                                                |                               |                                                                                                                                                              |
| 224        |                                                   |                                           |           |            | (217.0 - 227.0') Wildcat Washed Plastering Sand                | (217.0 - 227.0') 2.8 bags     | (217.0 - 227.0') 4 bags (143%)<br>Note: Indicator sand, used >20% of the calculated volume due to potential voids forming during drilling.                   |
| 225        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 226        | IRZ-13-VAS-224-229 (<0.83 ppb) 11/28/2018 16:00   | Topock - Weathered Bedrock - conglomerate | SM        |            |                                                                |                               |                                                                                                                                                              |
| 227        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 228        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 229        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 230        |                                                   |                                           |           |            | (227.0 - 233.0') Bentonite seal chips<br>Puregold medium chips | (227.0 - 233.0') 1.7 bags     | (227.0 - 233.0') 2 bags (118%)<br>Note: Decommissioned rathole                                                                                               |
| 231        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 232        |                                                   | Topock - Weathered Bedrock - conglomerate | ML        |            |                                                                |                               |                                                                                                                                                              |
| 233        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 234        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 235        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 236        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 237        |                                                   |                                           |           |            | (233.0 - 243.0') 100% Portland Cement Type I, II and V         | (233.0 - 243.0') 23.5 gallons | (233.0 - 243.0') 20 gallons (85%)<br>Note: Decommissioned rathole, grouted to 228 ft in casing, let set up over night and cleaned out casing to 233 ft. bgs. |
| 238        | IRZ-13-VAS-237-242 (<0.17 U ppb) 11/29/2018 13:20 | Topock - Weathered Bedrock - conglomerate | SM        |            |                                                                |                               |                                                                                                                                                              |
| 239        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |
| 240        |                                                   |                                           |           |            |                                                                |                               |                                                                                                                                                              |

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole

|                  |                         |                       |                |                                            |
|------------------|-------------------------|-----------------------|----------------|--------------------------------------------|
| Date Started:    | 11/30/2020              | Surface Elevation:    | 481.46 ft amsl | Well ID: IRZ-13 Pilot                      |
| Date Completed:  | 12/01/2018              | Northing (NAD83):     | 2103309.58     |                                            |
| Drilling Co.:    | Cascade                 | Easting (NAD83):      | 7615707.42     | Client: PG&E                               |
| Drilling Method: | Sonic Drilling          | Total Depth:          | 243 ft bgs     | Project: Final GW Remedy Phase 1           |
| Driller Name:    | Nick Petrone            | Borehole Diameter:    | 6-12 inches    | Location: PG&E Topock, Needles, California |
| Drilling Asst:   | T. Aylmer/J. Candelaria | Depth to First Water: | 27.6 ft bgs    |                                            |
| Logger:          | A. Garcia/G. Jeffers    | Editor:               | Sean McGrane   | Project Number: RC000753.0051              |

| Depth (ft) | Groundwater Sample ID                                   | Geologic Formation                        | USCS Code | USCS Class | Well Construction                                         |                               | Calculated Material Volumes      | Material Volumes Installed<br>Note: percentages are the actual volume vs the calculated volume                                                               |
|------------|---------------------------------------------------------|-------------------------------------------|-----------|------------|-----------------------------------------------------------|-------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 241        | IRZ-13-VAS-237-242<br>(<0.17 U ppb)<br>11/29/2018 13:20 | Topock - Weathered Bedrock - conglomerate | SM        |            | (233.0 - 243.0')<br>100% Portland Cement Type I, II and V | (8.0 - 243.0')<br>6" Borehole | (233.0 - 243.0')<br>23.5 gallons | (233.0 - 243.0') 20 gallons (85%)<br>Note: Decommissioned rathole, grouted to 228 ft in casing, let set up over night and cleaned out casing to 233 ft. bgs. |
| 242        |                                                         | Topock - Competent Bedrock - conglomerate |           |            |                                                           |                               |                                  |                                                                                                                                                              |
| 243        |                                                         |                                           |           |            |                                                           |                               |                                  |                                                                                                                                                              |

Final - Revised 12/7/20

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, BMP = Best Management Practices for stormwater, U = not detected above the laboratory reporting limit; Notes: blue water table symbol represents depth to water measured during the first VAS interval; granular backfill material was removed during overdrilling of the pilot borehole