

# The Reno Creek Project - Monitor Well Sampling Report

# AUC LLC

|              |         |              |        |                   |      |               |    |
|--------------|---------|--------------|--------|-------------------|------|---------------|----|
| Location ID  | OM7     | Sample Date: | 9/6/11 | Sampling Company: | TREC | Sampled By 1: | TN |
| Sample Event | Q2-2011 |              |        |                   |      | Sampled By 2: | WC |
|              |         |              |        |                   |      | Sampled By 3: |    |

### Well Information:

|                       |                 |                       |                                     |                   |
|-----------------------|-----------------|-----------------------|-------------------------------------|-------------------|
| Well Total Depth (TD) | 150             | ft                    | Well Measuring Point (MP) Location: | North Side-Marked |
| Sampled From:         | Monitoring Well | Well Inside Diameter: | 4.5                                 | inches            |
| Screened Interval:    | 130             | Feet to               | 150                                 | Feet              |
|                       |                 | Pump Type Used:       | Non-Dedicated Low Flow Bladder      |                   |
|                       |                 | Pump Intake Depth:    | 140                                 | ft                |
|                       |                 | Tubing Type:          | Non-dedicated Plastic               |                   |

### Well Fluid Measurements:

|                                 |                 |          |          |    |      |             |                  |
|---------------------------------|-----------------|----------|----------|----|------|-------------|------------------|
| Time (military):                | 900             | Weather: | Air Temp | 68 | (°F) | Conditions: | Overcast, chilly |
| Water level gauged using:       | Electronic tape |          |          |    |      |             |                  |
| Depth to Water (DTW) below MP:  | 126.95          | ft       |          |    |      |             |                  |
| Water Column Height (TD-DTW):   | 0               | ft       |          |    |      |             |                  |
| Water volume = $\pi r^2 h$ (cf) | 0.00            | gallons  |          |    |      |             |                  |
| 3 Well Volumes:                 | 0.00            | gallons  |          |    |      |             |                  |

|  |             |             |             |             |            |
|--|-------------|-------------|-------------|-------------|------------|
| Well volume (in gal / LF) = $\pi r^2 h$ where: $\pi$ = pi (approximately 3.14); $r$ = radius of monitoring well (feet)<br>cf = conversion factor (7.48 gal/ft3); |             |             |             |             |            |
| Well ID (in)   | 2           | 3           | 4           | 4.5         | 5          |
| Water Volume (gal/LF)  | 0.163188147 | 0.367173331 | 0.652752589 | 0.826139995 | 1.01992592 |

### Purging:

|                                  |                                |                  |     |                                    |                |                |                         |         |
|----------------------------------|--------------------------------|------------------|-----|------------------------------------|----------------|----------------|-------------------------|---------|
| Purge Date                       | 9/6/11                         | Purge Time Begin | 940 | Low Flow Pump Controller Settings: | Charge Time    | 5              | Exhaust Time            | 25      |
| Purge Pump Type:                 | Non-Dedicated Low Flow Bladder | Pumping Rate:    | 300 | ml/min                             | Meter Type(1): | YSI Multi      | Meter Calibration Date: | 8/15/11 |
| Volume Purged Prior to Sampling: | 1                              | gallons          |     |                                    | Meter Type(2): | Hach Turbidity | Meter Calibration Date: | 8/11/11 |
|                                  |                                |                  |     |                                    | Meter Type(3): |                | Meter Calibration Date: |         |

### Field Stabilization Measurements:

| Sample ID                       | Purge Date | Time (min.) | Purge Rate (ml/min) | Purge Rate (gal/min) | Temp (°C) | Conductivity (µmhos/cm) | DO (mg/L) | pH (su) | ORP (mV) | Turbidity (NTU) | Water Level (ft) | Comments |  |
|---------------------------------|------------|-------------|---------------------|----------------------|-----------|-------------------------|-----------|---------|----------|-----------------|------------------|----------|--|
| OM7-002-110906                  | 09/06/11   | 1000        | 300                 |                      | 20.35     | 1081                    | 6.77      | 10.92   | -110.3   | 1.9             | 128.90           |          |  |
|                                 |            | 1003        | 300                 |                      | 20.19     | 1118                    | 3.97      | 10.95   | -136.7   | 2.7             | 129.20           |          |  |
|                                 |            | 1006        | 300                 |                      | 19.78     | 1132                    | 2.81      | 11.11   | -161.9   | 2.6             | 129.29           |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |
| Repeat Last Stabilization Meas. |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |  |

### Sampling:

|                   |                                |                              |      |                |                |                           |         |
|-------------------|--------------------------------|------------------------------|------|----------------|----------------|---------------------------|---------|
| Sample Date       | 9/6/2011                       | Sample Collection Time (MT): | 1015 | Meter Type(1): | YSI Multi      | Meter 1 Calibration Date: | 8/15/11 |
| Sample Pump Type: | Non-Dedicated Low Flow Bladder |                              |      | Meter Type(2): | Hach Turbidity | Meter 2 Calibration Date: | 8/11/11 |
|                   |                                |                              |      | Meter Type(3): |                | Meter 3 Calibration Date: |         |

### Analysis:

|                |    |                                  |      |        |         |       |     |
|----------------|----|----------------------------------|------|--------|---------|-------|-----|
| QA/QC Sample   | No | QA/QC Type Duplicate Sample Time | None | COC#1: | RC08373 | Lab 1 | IML |
| Duplicate Name |    |                                  |      | COC#2: |         | Lab 2 | ALS |
|                |    |                                  |      | COC#3: |         | Lab 3 |     |

Analysis: Table 1- 4.14, Guide 8, & Radon 222

Comments: Took direct sample due to low water volume; did not establish purge rate; did not use parameters for stabilization due to nearly non-existent recharge rate; very high pH; final water level was 131.75.

### Stabilization Parameters

|           |                          |
|-----------|--------------------------|
| Temp      | = +/- 3% in celsius      |
| pH        | = +/- 0.1 unit           |
| SC        | = +/- 3% in µmhos/cm     |
| ORP/Eh    | = +/- 10 millivolts      |
| DO        | = +/- 10% in mg/L        |
| Turbidity | = +/- 10% for values > 5 |

### Range values for data entry

| Conductivity Range (mS/cm) | Turbidity (NTU) | Dissolve Oxygen (DO) (mg/L) | Temperature Range (°C) | Ox/Reduc Potential (mV) |
|----------------------------|-----------------|-----------------------------|------------------------|-------------------------|
| Min 0                      | Min 0           | Min 0.01                    | Min -20                | Min -400                |
| Max 2000                   | Max 1000        | Max 2000                    | Max 80                 | Max 700                 |