# The Reno Creek Project - Monitor Well Sampling Report

AUC LLC

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Location ID | UM2 | Sample Date: | 2/2/12 | Sampling Company: | TREC | Sampled By 1: | TN |
| | | | | | | Sampled By 2 | WC |
| Sample Event | Q4-2012 | | | | | Sampled By 3: | |

## Well Information:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Well Total Depth (TD) | 443 | ft | | | Well Measuring Point (MP) Location: | | North Side-Marked | | |
| Sampled From: | Monitoring Well | | Well Inside Diameter: | 4.5 | inches | Pump Type Used: | Dedicated Low Flow Bladder | | |
| Screened Interval: | 423 | Feet to | 443 | Feet | | Pump Intake Depth: | 433 | ft | Tubing Type: Dedicated Plastic |

## Well Fluid Measurements:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Time (military): | 8:00 | Weather: | Air Temp | 24 | (°F) | Conditions: | Overcast, slight breeze, wind speed 7 mph |

| | | |
|---|---|---|
| Water level gauged using: | Electronic tape | ft |
| Depth to Water (DTW) below MP: | 314.89 | ft |
| Water Column Height (TD-DTW): | 0 | ft |
| Water volume = $pr^2h$ (cf) | 0.00 | gallons |
| 3 Well Volumes: | 0.00 | gallons |

Well volume (in gal / LF) = pr2 (cf) where: p = pi (approximately 3.14); r = radius of monitoring well (feet)
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 | 2/2/12 | Purge Time Begin | 8:10 | | Low Flow Pump Controller Settings: | | Charge Time | 10 | Exhaust Time 20 |
| Purge Pump Type: | Dedicated Low Flow Bladder | Pumping Rate: | 290 | ml/min | Meter Type(1): | YSI Multi | Meter Calibration Date: | 1/24/12 | |
| Volume Purged Prior to Sampling: | 3 | gallons | | | Meter Type(2): | Hach Turbidity | Meter Calibration Date: | 1/24/12 | |
| | | | | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UM2-004-120202 | 02/02/12 | 8:35 | 290 | | 8.04 | 1065 | 6.56 | 10.72 | 90.6 | 2.7 | 316.74 | |
| | | 8:38 | 290 | | 8.03 | 1067 | 4.71 | 10.70 | 85.4 | 2.1 | 316.85 | |
| | | 8:41 | 290 | | 8.03 | 1069 | 4.18 | 10.69 | 83.7 | 2.6 | 316.93 | |
| | | 8:44 | 290 | | 8.04 | 1064 | 3.71 | 10.70 | 80.2 | 5.5 | 317.01 | |
| | | 8:47 | 290 | | 8.03 | 1060 | 3.52 | 10.71 | 78.3 | 6.0 | 317.25 | |
| | | 8:50 | 290 | | 8.04 | 1053 | 3.10 | 10.73 | 74.1 | 4.7 | 317.44 | |
| | | 8:53 | 290 | | 7.94 | 1050 | 2.86 | 10.75 | 70.7 | 3.7 | 317.66 | |
| | | 8:56 | 290 | | 7.93 | 1049 | 2.78 | 10.72 | 70.7 | 3.6 | 317.82 | |
| | | 8:59 | 290 | | 8.01 | 1046 | 2.68 | 10.71 | 68.6 | 3.4 | 317.90 | |
| Repeat Last Stabilization Meas. | | | | | | | | | | | | |

## Sampling:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sample Date | 2/2/2012 | Sample Collection Time (MT): | 9:00 | | | | |
| Sample Pump Type: | Dedicated Low Flow Bladder | | | Meter Type(1): | YSI Multi | Meter 1 Calibration Date: | 1/24/12 |
| | | | | Meter Type(2): | Hach Turbidity | Meter 2 Calibration Date: | 1/24/12 |
| | | | | Meter Type(3): | | Meter 3 Calibration Date: | |

## Analysis:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| QA/QC Sample | No | QA/QC Type | | COC#1: | RC08186 | Lab 1 | IML |
| Duplicate Name | | Duplicate Sample Time | | COC#2: | | Lab 2 | ALS |
| | | | | COC#3: | | Lab 3 | |
| Analysis: | Table 1- 4.14, Guide 8, & Radon 222 | | | | | | |

Comments:

Took a long time to get water due to depth. High pH suspect. Slow recharge so sampled with minimal draw down.

Final water level 321.45

| Stablization Parameters |
|---|
| Temp = +/- 3% in celcius |
| 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 (µmhos/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 |