

# The Reno Creek Project - Monitor Well Sampling Report

# AUC LLC

Location ID	UM2	Sample Date:	12/20/11	Sampling Company:	TREC	Sampled By 1:	TN
Sample Event	Q3-2011					Sampled By 2:	WC
						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
Screened Interval:	423	Feet to	443	Feet
		Pump Type Used:	Dedicated Low Flow Bladder	
		Pump Intake Depth:	433	ft
		Tubing Type:	Dedicated Plastic	

### Well Fluid Measurements:

Time (military):	1400	Weather:	Air Temp	45	(°F)	Conditions:	Sunny, breezy
Water level gauged using:	Electronic tape	ft					
Depth to Water (DTW) below MP:	314.03	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) = $\pi r^2 (cf)$ where: $\pi$ = pi (approximately 3.14); $r$ = radius of monitoring well (feet) cf = conversion factor (7.48 gal/ft <sup>3</sup> );					
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	12/20/11	Purge Time Begin	1405	Low Flow Pump Controller Settings:	Charge Time	8	Exhaust Time	22
Purge Pump Type:	Dedicated Low Flow Bladder	Pumping Rate:	300	ml/min	Meter Type(1):	YSI Multi	Meter Calibration Date:	12/19/11
Volume Purged Prior to Sampling:	2.5	gallons			Meter Type(2):	Hach Turbidity	Meter Calibration Date:	12/19/11
					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		
UM2-003-111220	12/20/11	1418	300		9.84	1071	3.92	10.81	20.3	8.6	316.46			
		1421	300		9.90	1074	3.88	10.83	13.9	11.7	316.65			
		1424	300		9.88	1072	2.84	10.83	9.7	10.6	316.70			
		1427	300		9.87	1069	2.67	10.83	7.4	10.0	316.75			
		1430	300		9.84	1068	2.63	10.83	5.7	7.9	316.80			
		1433	300		9.89	1067	2.54	10.83	4.4	6.9	316.95			
Repeat Last Stabilization Meas.														

### Sampling:

Sample Date	12/20/2011	Sample Collection Time (MT):	1445	Meter Type(1):	YSI Multi	Meter 1 Calibration Date:	12/19/11
Sample Pump Type:	Dedicated Low Flow Bladder			Meter Type(2):	Hach Turbidity	Meter 2 Calibration Date:	12/19/11
				Meter Type(3):		Meter 3 Calibration Date:	

### Analysis:

QA/QC Sample	No	QA/QC Type		COC#1:	RC08161	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:

Purged more than one gallon to flush lines; began with a quick 2-foot drawdown most likely due to length of line; little to no recharge so sampled with minimal drawdown; high pH; could not stabilize turbidity so didn't use as a factor

### Stabilization 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