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From: "Erik Petersen" <petersen@relia.net>
To: <stevefluke@utah.gov>
Date: 4/28/2006 1:36:36 PM
Subject: Genwal baseline parameters 2005

Steve,

I hope that you and Gary are having a good time at Genwal today. It's always fun when Gary is around! I wish I was there.

I am sending you a file that contains all the selenium data from the 2005 baseline monitoring at Genwal. For some unknown reason, the lab (CT&E/SGS) didn't get the selenium data incorporated into the EDI upload file. I have entered all the appropriate information into the attached spreadsheet so you can get it uploaded (as we discussed previously). The selenium data were reported on the laboratory reporting sheets, just not included in the .csv file. The selenium data are all complete for both the 2nd and 4th quarter baseline monitoring. It is noteworthy that there was no selenium detected anywhere in the monitoring area in either the 2nd or 4th quarters, with the exception of a single detection of 0.020 mg/l (equal to the lower detection limit) at LB-5A on 10/17/05.

The acidity data that were previously missing from the EDI are also included on the attached spreadsheet. For an unknown reason, SGS didn't run acidity on a single batch of 6 samples from the 2nd quarter baseline monitoring that I sampled on 6/19/05. Acidity was run on all the other baseline samples from the 2nd quarter and on all baseline samples from the 4th quarter. SGS provided acidity data for five of the six samples which have included on the attached spreadsheet.

Acidity is measured by titrating the water sample with OH- in the laboratory. The titration endpoint is pH 8.3. The acidity value is a measurement of the water's ability to react with hydroxyl ions. In the laboratory, when each sample was titrated for alkalinity, the initial pH values of the samples were measured recorded as part of the laboratory analytical method. When the lab performs the separate acidity titration, they add the OH- to another aliquot of the sample until the pH raises to the pH 8.3 endpoint. When the initial pH is greater than 8.3, there is, by definition, no acidity to measure. Thus, when the initial pH is greater than 8.3, the lab does not perform any titration and a value of <5 is reported. For the six samples for which the lab did not measure acidity, the initial pH recorded at the lab was greater than 8.3. Consequently, there is, by definition, no acidity in these five samples. The certified laboratory will issue amended reporting sheets that include acidity for each of these five samples. The initial pH at the other site (SP-58 on 5/31/05) was 7.6. Thus, they cannot report an acidity value for that sample. However, acidity was measured at SP-58 later that year (11/2/05) and none was found. The field pH at SP-58 was similar on both occasions.

Let me know if you have any questions.

Thanks,

Erik

CC: "'Gary Gray'" <ggray@andalex.com>

Selenium EDI data :

	Date	IO2+NO3 N mg/l	NH3 mg/l	D-As mg/l	D-B mg/l	D-Cd mg/l	D-Cu mg/l	D-Pb mg/l	D-Se mg/l	Detection Limit	Method	Date analyzed	Date Reported	Analyst	D-Zn mg/l	Acidity mg/l	NO3 mg/l	NO2 mg/l	O-PO4 mg/l	T-P mg/l	F-Turb. NTU	D-Al mg/l	D-Mb mg/l
Springs																							
SP-36	6/21/2005	0.05	< .1	< .01	0.04	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	< 5.		< .05		< .05		< .03	< .005
SP-36	12/27/2005		< .1	< .01	0.03	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	18-Jan-05	JJ	< .004	< 5.	< .1	< .1	< .01	0.15		< .03	< .005
SP-58	5/31/2005	0.24	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	0.004			< .05		< .05		< .03	< .005
SP-58	11/2/2005		< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	11/4/2005 15:20	15-Nov-05	JJ	< .004	< 5.	< .05	< .05		< .05		< .03	< .005
SP2-24	6/19/2005	8.29	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	19-Jul-05	DI	< .004	< 5.		< .05		0.26		< .03	< .005
SP2-24	10/12/2005		0.2	< .01	< .01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	10/25/2005 16:12	8-Nov-05	JJ	< .004	< 5.	5.03	< .05		< .05		< .03	< .005
SP2-9	6/19/2005	1.54	< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	7-Jul-05	DI	< .004	< 5.		< .05		0.16		< .03	< .005
SP2-9	10/12/2005		0.5	< .01	< .01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	10/25/2005 16:12	8-Nov-05	JJ	< .004	< 5.	0.91	< .05		0.06		< .03	< .005
SP1-33	6/19/2005	0.39	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	12-Jul-05	DI	< .004	< 5.		< .05		< .05		< .03	< .005
SP1-33	10/12/2005		0.2	< .01	< .01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	10/25/2005 16:12	3-Nov-05	JJ	< .004	< 5.	0.4	< .05		< .05		< .03	< .005
SP1-9	6/19/2005	0.12	< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	12-Jul-05	DI	< .004	< 5.		< .05		< .05		0.04	< .005
SP1-9	10/12/2005		0.2	< .01	< .01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	10/25/2005 16:12	3-Nov-05	JJ	< .004	< 5.	0.17	< .05		0.07		< .03	< .005
LB-5A	7/27/2005		<.1	<0.010	0.02	<.001	<0.01	<0.01	<0.02	0.020	EPA 200.7	8/11/2005 11:48	19-Aug-05	JJ	0.012	<5	0.28	<0.05		<0.05		<0.03	<0.005
LB-5A	10/17/2005		< .1	< .01	0.02	< .001	< .01	< .01	**0.02**	0.020	EPA 200.7	10/25/2005 16:12	3-Nov-05	JJ	< .004	< 5.	0.27	< .05		< .05		< .03	< .005
Little Bear Spring	6/21/2005	0.22	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	0.005	< 5.		< .05		< .05		< .03	< .005
Little Bear Spring	12/27/2005		< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	18-Jan-05	JJ	< .004	< 5.	0.2	< .1	< .01	0.15		< .03	< .005
SP-79	7/27/2005		< .1	<0.010	0.14	<0.001	<0.01	<0.01	<0.02	0.020	EPA 200.7	8/11/2005 11:48	10-Oct-05	JJ	<0.004	<5	<0.05	<0.05	<0.05	<0.05		<0.03	<0.005
SP-79	12/28/2005		< .1	< .01	0.09	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	18-Jan-05	JJ	< .004	< 5.	< .05	< .05	< .05	0.07		< .03	< .005
Streams																							
UPF-1	5/31/2005	0.96	< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	<5.		< .05		0.15		< .03	< .005
UPF-1	12/27/2005		< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	18-Jan-05	JJ	< .004	< 5.	< .1	< .1	< .01	0.15	1.75	< .03	< .005
LOF-1	5/31/2005	1.01	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	<5.		< .05		0.14		< .03	< .005
LOF-1	12/28/2005		< .1	< .01	0.11	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	26-Jan-05	JJ	< .004	< 5.	5.36	< .05	< .05	< .01	3.16	< .03	< .005
Horse Canyon Creek	5/31/2005	0.43	< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	<5.		< .05		0.13		< .03	< .005
Horse Canyon Creek	12/28/2005		< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	26-Jan-05	JJ	< .004	< 5.	0.11	< .05	< .05	> .05	4.23	< .03	< .005
Blind Canyon Flume	5/31/2005	< .05	< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	<5.		< .05		0.06		< .03	< .005
Blind Canyon Flume	12/28/2005		< .1	< .01	0.01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	26-Jan-05	JJ	< .004	< 5.	0.07	< .05	< .05	< .01	1.73	< .03	< .005
Indian Creek	6/19/2005	0.11	< .1	< .01	0.02	< .001	0.04	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	12-Jul-05	DI	< .004	< 5.		< .05		0.05	121	< .03	< .005
Indian Creek	10/12/2005		0.4	< .01	< .01	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	10/25/2005 16:12	3-Nov-05	JJ	< .004	< 5.	< .05	< .05		< .05		< .03	< .005
Little Bear Creek	7/27/2005		<0.1	<.01	0.04	<0.001	<0.01	<0.01	<0.02	0.020	EPA 200.7	8/11/2005 11:48	19-Aug-05	JJ	<0.004	<5	0.06	<0.05		<0.05			
IBC-1	5/31/2005	< .05	< .1	< .01	0.03	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	<5.	<.05	< .05		< .05		< .03	< .005
Section 4 Creek	7/27/2005		<.1	<.01	0.09	<.001	<.01	<.01	<0.02	0.020	EPA 200.7	8/11/2005 11:48	19-Aug-05	JJ	<.004	<5	<.05	<.05		<.05		<.03	<.005
Section 4 Creek	12/28/2005		< .1	< .01	0.05	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	1/16/2006 9:42	26-Jan-05	JJ	< .004	< 5.	< .05	< .05	< .05	0.06	4.77	< .03	< .005
Section 5 Creek	6/21/2005	< .05	< .1	< .01	0.04	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	6/25/2005 14:13	5-Jul-05	DI	< .004	< 5.		< .05		< .05		< .03	< .005
Section 5 Creek	11/2/2005		< .1	< .01	0.02	< .001	< .01	< .01	<0.02	0.020	EPA 200.7	11/4/2005 15:20	15-Nov-05	JJ	< .004	5	< .05	< .05		< .05	1.73	< .03	< .005