OGMCOAL - Coagulant assumption for polymer test

From: Kevin Lundmark
To: Dana Marrelli
Date: 2/3/2011 7:56 AM
Subject: Coagulant assumption for polymer test
CC: Dana Dean; Daron Haddock; Dave Shaver; Denise Dragoo; OGMCOAL; Stev...
Attachments: Scan001.PDF

Hi Dana,
Thanks for getting this analysis performed and sending the results along. I wanted to provide Genwal some feedback on these and ask some follow up questions.

The reason that I requested the analysis of a 1 ppm Nalco 8187 (coagulant) solution was to corroborate the assumed 1 ppm coagulant concentration for the polymer titration test. Based on the work performed by WaterSolve, the settling curve for the polymer clay test is dependent on the coagulant concentration in the water used to prepare the standards (and the water being tested). I understand that WaterSolve was instructed by Genwal to use a 1 ppm coagulant concentration; however, basis for selecting 1 ppm was not clear to me.

The results from the January 2011 analysis of a 1 ppm Nalco 8187 solution (the SGS report your provided 1/31) indicate that the total aluminum concentration of a 1 ppm coagulant solution is 0.13 mg/L. The total aluminum concentration in treated minewater samples analyzed by Genwal between March and November 2010 have ranged from 0.27 mg/L to 2.34, with most results being greater than or equal to 0.5 mg/L. The pH reported by SGS for the 1 ppm coagulant solution (7.80) is generally comparable with the pH values reported for treated minewater between March and November 2010 (7.06 to 8.07).

Based on the information available, and absent any other explanation from Genwal or your consultants, the 1 ppm coagulant concentration assumption for the polymer test seems questionable. It may be more appropriate to use a higher concentration, say 5 ppm. Can you please discuss with WaterSolve, SGS or NALCO, as appropriate, and get back to us with either an explanation of why 1 ppm is appropriate or a plan to modify the polymer test procedure. I'd also like to get an explanation of the 2nd page of the scan you sent 1/31, as that does not appear to be a laboratory report.

Please feel free to call if you have any questions.

Regards,
Kevin

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>>> "Marrelli, Dana" <dmarrelli@coalsource.com> 1/31/2011 12:13 PM >>>
Hello Kevin,
Here is the Aluminum and pH information you requested on the 1ppm
coagulant.
Please let me know if you need anything else.
Thank you,
Dana

-----Original Message-----

From: Xerox_UEI@coalsource.com [mailto:Xerox_UEI@coalsource.com]
Sent: Monday, January 31, 2011 12:00 PM
To: Marrelli, Dana
Subject: Scan from West Ridge Main Office

Please open the attached document.

Attachment File Type: PDF

Device Name: WRMainColorXerox

UtahAmerican Energy, Inc.
West Ridge Resources, Inc.
435.888.4000

SGS

Analysis Report

January 26, 2011

GENWAL RESOURCES INC
794 "C" CANYON ROAD
EAST CARBON UT 84520

Client Sample ID:	Mine Water from Polymer Site	Sample ID By:	Genwal Resources Inc.
Date Sampled:	Jan 13, 2011	Sample Taken At:	Raw Mine Water From Polymer Site
Date Received:	Jan 13, 2011	Sample Taken By:	Dana
Product Description:	WATER	Time Received:	1330
		Time Sampled:	1245
		Mine:	8

Comments: pH and Total Aluminum Analyzed on 1 ppm Coagulant

SGS Minerals Sample ID: 782-1106166-001

TESTS	RESULT	UNIT	METHOD	REPORTING LIMIT	ANALYZED DATE	TIME	ANALYST
pH	7.80	s. u.	SM4500-H	0.010	2011-01-19	13:40:00	AL
pH Temperature	21.20	°C	SM4500-H	0.010	2011-01-19	13:40:00	AL
METALS BY ICP							
Aluminum, Al - Total	0.13	mg/L	EPA 200.7	0.030	2011-01-25	13:00:37	CM
Aluminum, Al - Dissolved	<0.03	mg/L	EPA 200.7	0.030	2011-01-25	16:37:00	CM

Lab Supervisor

Domenic Ibanez
Lab Supervisor

SGS North America Inc. | Minerals Services Division
2035 North Airport Road Huntington t (435) 653-2311 f (435)-653-2436 www.sgs.com/minerals

UTAH AMERICA ALUMINUM TEST

1. Settled Raw Water (collected 12/10/10)

   A. Total Aluminum: UNDER MEASURING RANGE*

   B. Dissolved Aluminum: UNDER MEASURING RANGE*

2. Settled Raw Water with 1-ppm Coagulant 8187

   A. Total Aluminum: 0.116-mg/L

   B. Dissolved Aluminum: UNDER MEASURING RANGE*

3. Treated Water Sample (collected 12/13/10)

   A. Total Aluminum: UNDER MEASURING RANGE*

   B. Dissolved Aluminum: UNDER MEASURING RANGE*

* Measuring Range 0.008 to 0.800-mg/L