



April 20, 2009

Office of Water Quality Water-Quality Information Note 2009.07

Subject: Disabling of data entry for four parameter codes related to alkalinity and acid-neutralizing capacity in the National Water Information System

The April 2009 quarterly release of National Water Information System (NWIS) reference data will disable entry of results for four parameter codes into the water-quality subsystem of NWIS. Water-science center (WSC) personnel should take three actions.

1. Immediately cease using these four parameter codes. Different parameter codes for these types of measurements exist.
2. Review local field forms and replace these four parameter codes.
3. Database administrators at seven WSCs should review recent records for these parameters and move the results to recommended parameter codes.

We anticipate that the time required to make these corrections will be minimal.

Recent investigation has found that the meaning of these four parameter codes (Table 1) has always been subject to interpretation, as either alkalinity or as carbonate. In 2003, the parameters were redefined strictly to mean carbonate. However, problems remain for interpretation of retrievals containing results for these parameter codes.

Table 1.—Parameter codes which will be disabled for entry of new data

Parameter code to be disabled	Preferred parameter code to indicate Carbonate results	Current definition of the disabled parameter code (2009)	Earlier definition of the disabled parameter code (1995)	Total usage of the disabled parameter code (March 3, 2009)
00430	Use one of the method-specific parameter codes. ¹	Carbonate, water, unfiltered, milligrams per liter as calcium carbonate	ALKALINITY, CARBONATE (MG/L AS CaCO ₃)	17,907
90430	00446	Carbonate, water, unfiltered, inflection-point titration method (incremental titration method), laboratory, milligrams per liter as calcium carbonate	ALKALINITY, CARBONATE INCREMENTAL TITRATION, LAB (MG/L AS CaCO ₃)	71
95430	00448	Carbonate, water, unfiltered, fixed endpoint (pH 8.3) titration, laboratory, milligrams per liter as calcium carbonate	ALKALINITY, CARBONATE FIXED-PH ENDPOINT TITRATION, LAB (MG/L AS CaCO ₃)	7
99430	00447	Carbonate, water, unfiltered, inflection-point titration method (incremental titration method), field, milligrams per liter as calcium carbonate	ALKALINITY, CARBONATE INCREMENTAL TITRATION, FIELD (MG/L AS CaCO ₃)	11,434

¹Current parameter-code usage recommendations for alkalinity, acid neutralizing capacity, carbonate, bicarbonate, and hydroxide measurements can be found at the Alkalinity Calculator web page: <http://or.water.usgs.gov/alk/reporting.html>

An inventory of usage since 2003 for these four parameter codes has been compiled to assist water-science personnel in assessing the magnitude of effort required to move data from the incorrect parameter codes to an appropriate code (Table 2). The Phoenix water-quality users' group is analyzing all the data stored for these parameters in an attempt to determine if

inconsistencies exist in the results for samples collected prior to 2003. If you have information about the usage of the codes, please contact them (phoenix@usgs.gov).

Table 2.--Usage since 2003 of the Parameter Codes by NWIS Host

Office	NWIS Host	Data-base	Record Number	Sample Date	Collecting Agency	Parameter Code	Value	Field pH
KS	dkslwr	01	00403063	2004-07-28 10:15	USGS-WRD	00430	8	9.0
FL	flnwis1	01	00303412	2003-04-16 10:45	USGS-WRD	99430	149	7.8
	flnwis1	01	00303413	2003-04-16 11:00	USGS-WRD	99430	146	7.8
	flnwis1	01	00308025	2003-04-16 09:45	USGS-WRD	99430	229	7.2
	flnwis1	01	00308028	2003-04-16 12:30	USGS-WRD	99430	230	7.3
CA	placer	01	00501224	2005-06-01 14:30	USGS-WRD	99430	168	7.6
	placer	01	00501225	2005-06-01 12:20	USGS-WRD	99430	90	6.7
	placer	01	00501226	2005-06-01 12:40	USGS-WRD	99430	127	7.1
	placer	01	00501227	2005-06-01 14:05	USGS-WRD	99430	74	8.0
OR	porkdorprn	01	00800193	2008-01-14 10:20	OR-EWEB	99430	20	7.5
OH	smsr1dohclb	04	00400304	2004-07-08 14:13	USGS-WRD	99430	279	7.3
IN	srv1dinind	01	00401142	2004-09-21 09:30	USGS-WRD	00430	1	7.9
MN	sun1dmnspl	01	00400535	2004-09-21 09:30	USGS-WRD	00430	1	7.9

Signed,

The Office of Water Quality
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