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**TECHNICAL MEMORANDUM**

TO: Sergio Gonzalez, Resolution Copper Mining
FR: Rens Verburg and Mary Harvey, Golder Associates
CC: David Kidd, Don Welch, Terry Eldridge, Golder Associates
RE: Kinetic Testing Results of Cleaner and Scavenger Tailings – Resolution Copper Project

DATE: July 14, 2008
OUR REF: 073-92548

1.0 INTRODUCTION

This Technical Memorandum presents the results from the 20-week kinetic geochemical characterization program of cleaner and scavenger tailings for the Resolution Copper Project conducted by Golder Associates (Golder). The program was carried out to evaluate the environmental stability of the tailings and supplement the static testing program reported on in a previous document (Golder, 2007). The kinetic testing program was implemented with the following specific objectives in mind:

- To determine long-term water quality for the cleaner and scavenger tailings;
- To verify the acid generation potential of the scavenger tailings, which had been classified as “uncertain” based on the static testing program;
- To evaluate sulfide reactivity as a function of moisture content; and,
- To assist in evaluation of operational placement options and requirements.

2.0 TESTING PROGRAM

Two types of tailings samples were submitted for kinetic testing: cleaner tailings and scavenger tailings. Three samples of each type with varying moisture contents were tested. The six samples were as follows:

- HC 1-C: cleaner tailings (thickened, non-segregating, ~ 71% solids)
- HC 2-C: cleaner tailings (filter cake, ~ 83.5% solids)
- HC 3-C: cleaner tailings (paste, 10-inch slump, ~ 77.5% solids)
- HC 1-S: scavenger tailings (thickened, non-segregating, ~ 70% solids)
- HC 2-S: scavenger tailings (filter cake, ~ 83% solids)
- HC 3-S: scavenger tailings (paste, 10-inch slump, ~ 75% solids)

Kinetic testing generally is conducted in the form of humidity cell testing (HCT), which is a methodology that can be used to assess the rate of weathering, sulfide oxidation and metals release from mining wastes and geologic materials. The testing was performed in accordance with ASTM D5744-6, which is intended to meet kinetic testing regulatory requirements for mining wastes

(ASTM, 2000). As per the method statement, when kinetic testing is conducted in accordance with ASTM D5744-6, waste rock weathering rates may be accelerated by at least one order of magnitude relative to rates observed in the field.

Kinetic testing was performed by Canadian Environmental & Metallurgical Inc. (CEMI), based in Burnaby BC. The humidity cells consisted of acrylic tubing, with an 8-inch height and 4-inch diameter. HCT cells were charged with 0.9 kg of sample prepared for the appropriate solids concentration and moisture ratio. For the initial leach cycle (week 0), 750 mL of nanopure water was added with the leachate drain closed. After one hour, the cells were drained, the leachate volumes recorded and the leachates submitted for analysis.

The cells were operated on a weekly cycle. For three days, the cells were provided with a steady flow of dry air followed by three days of a steady flow of saturated air. On the 7th day of each cycle, the airflow was disconnected and the cells were flood leached with 500 mL of nanopure water. The leachate volumes were recorded and the leachate samples were submitted for analysis. The duration of the kinetic testing program was 20 weeks, which represents the minimum regulatory expectation.

Leachates from each weekly cycle were analyzed for diagnostic ARD indicator parameters including pH, conductivity, redox (Eh), alkalinity, acidity, calcium, iron and sulfate. Leachate pH, acidity, iron and sulfate are used to assess the degree and rate of sulfide oxidation. Leachate alkalinity and calcium provide information on the neutralization capacity of the waste and the mineral phases responsible for neutralization. In addition, a suite of dissolved metals was analyzed by inductively coupled plasma mass spectrometry (ICP-MS) and dissolved mercury analysis was conducted by cold vapor atomic absorption (CVAA).

3.0 KINETIC TESTING RESULTS

3.1 Kinetic Testing Leachate Results

HCT leachate results for the 20 weeks of testing are presented in Figures 1 to 43. For selected parameters, the figures also include the solid phase concentrations. General geochemical and ARD indicator parameters are presented first (i.e., pH, redox, conductivity, alkalinity, acidity, sulfate and hardness) followed by the remaining parameters in alphabetical order. All analytical results are provided in Appendix A.

Leachate results for the first few weeks of kinetic testing generally are considered to be indicative of “first flush” conditions, during which readily-soluble material is removed from the solid. Soluble material includes primary minerals that may dissolve easily (e.g., sulfate minerals and certain carbonate minerals) as well as secondary minerals formed during weathering, including through sulfide oxidation. Early results therefore are not a good indication of long-term behavior, but may instead be influenced by the age of the sample as well as the manner in which the sample was obtained.

3.1.1 Scavenger Tailings

3.1.1.1 *ARD Indicator Parameters*

The scavenger tailings were classified as having an “uncertain” acid generating potential based on the results from the acid base accounting (ABA) and net acid generation (NAG) testing (Table 1) (Golder 2007). The kinetic testing results show that the pH has remained neutral (7.0 to 7.7) over the 20-week testing period (Figure 1), which is significantly higher than the NAG pH of 4.5. There appears to be a

very slight decreasing trend over time. Alkalinity results show a decreasing concentration that started between 40 to 55 mg/L as CaCO_3 and decreased to approximately 8 mg/L as CaCO_3 (Figure 4). Between weeks 18 and 20, a slight increase in alkalinity was observed.

Sulfate concentrations were initially near 1,000 to 1,500 mg/L and decreased more or less continuously to 60 to 260 mg/L over 20 weeks (Figure 7). Sulfate leaching during the early stages of kinetic testing generally represents release of sulfate from readily-soluble components, such as gypsum or other sulfate minerals. Conductivity readings for the samples followed the sulfate trend (Figure 3), indicating that sulfate represented the principal contribution to conductivity. Conditions were oxidizing throughout the testing period (Figure 2).

No distinct differences in concentration trends of ARD indicator parameters were observed that could be attributed to the differences in moisture content between the three scavenger tailings samples.

3.1.1.2 Metal Leaching

Kinetic testing results through week 20 were representative of metal leaching under circum-neutral conditions, with low to very low dissolved metal concentrations. Virtually all metals showed a steady or decreasing trends. A comparison with Arizona Aquifer Water Quality Standards (AAWQS) (presented in Table 2) indicated no exceedances of the AAWQS.

As for the ARD indicator parameters, no distinct differences in concentration trends were observed that could be attributed to the differences in moisture content between the three scavenger tailings samples.

3.1.2 Cleaner Tailings

3.1.2.1 ARD Indicator Parameters

As expected based on the ABA and NAG results, the three cleaner tailings samples turned acidic very rapidly, and in the order expected based on solids content, with the driest material being the most reactive (solids contents were 71%, 77.5% and 83.5% for thickened tailings, paste and filter cake, respectively).

Within the first 5 weeks, the pH decreased to between 2.5 and 3.0 for all samples (Figure 1), which is slightly higher than the NAG pH of 2.2. This pH range is well below the AAWQS range of 6 to 9 s.u. Alkalinity was not detected for any of the cleaner tailings samples after week 4. Compared to the scavenger tailings, the sulfate concentrations were much higher, ranging after the first five weeks from approximately 1,000 to 3,800 mg/L. Sulfate concentrations showed a slight decrease over time; however, concentrations fluctuated over a large range. Conditions were oxidizing throughout the testing period.

3.1.2.2 Metal Leaching

Due to their more acidic conditions, the cleaner tailings demonstrated significantly enhanced metal leaching relative to the scavenger tailings. Exceptions were Ba, Mo, K and Sr, whose leachability was lowest in the cleaner tailings. After initial spikes between approximately weeks 0 and 10 for some parameters, most concentrations trends were stable or decreasing over time. Metal concentrations during those initial spikes generally increased more rapidly with increasing solids content. Over time, concentrations generally converged towards a common range. Occasional exceedances of AAWQS were observed for Be, Cd, Cr, Se, and Tl.

4.0 ACID GENERATION POTENTIAL

The results from the kinetic testing program were used to evaluate rates of sulfide oxidation and depletion of neutralization potential (NP). By comparing the time required for depletion of available reactive sulfide vs. available NP, it can be determined whether the material in question will be net acid generation or net neutralizing. In addition, one of the goals of the kinetic testing program is to assess the timing of the onset of acid generation for mine waste materials. Results from the current HCT program indicate that a minimal lag time (in the order of 2 to 5 weeks depending on solids content) occurs prior to the onset of acid generation for the cleaner tailings.

Acid generation and neutralization depletion rates for the samples are shown in Table 3. Depletion trends are presented in Figures 44 to 47, illustrating both removal percentages as well as removal rates. Average sulfate generation and alkalinity depletion rates from weeks 15 to 20 were used to calculate the time to sulfide depletion and NP exhaustion. The final column in Table 2 identifies samples whose time to sulfide depletion exceeds the time to NP exhaustion. For these samples, acidic conditions may develop.

The time required for establishment of acidic conditions can be approximated by the time to NP depletion. Under the conditions represented by the humidity cells, depletion of NP from the cleaner tailings is very rapid. The amount of time that it will take for the sulfide to be depleted under HCT conditions is in the range of 20 to 30 years.

For the scavenger tailings, the NP depletion also occurs very rapidly. The time to sulfide depletion is estimated to be approximately 1 to 1.5 years in the humidity cells. Since the calculated time intervals to sulfide and NP depletion are in the same range, uncertainty with regard to acid generation potential remains based on the results of the first 20 weeks of kinetic testing.

It should be noted that, according to the ASTM protocol for humidity cell testing, reaction rates in the cells are accelerated by about one order of magnitude for mine rock. This is generally understood to be caused by the difference in grain size between the test charges and material in a mine rock facility. The relationship between reaction rates for tailings in HCTs and in a tailings impoundment is less clear as the grain size effect is of less consequence. However, due to the aggressive nature of the leaching cycles in the HCTs, it stands to reason that some acceleration is achieved for tailings as well relative to mine conditions. Therefore, the observed lag times to acid generation for the cleaner tailings (2 to 5 weeks – Figure 1) may translate in the field to several months.

In summary, the evaluation of humidity cell results and reaction rates confirm that the cleaner tailings are potentially acid generating with little to no lag times to acid generation. Reaction rates are proportional to the solids content, while lag times to acid generation are inversely proportional to solids content. Based on the results from the 20-week HCT program, the acid generation potential of the scavenger tailings is still uncertain.

5.0 RECOMMENDATIONS FOR FURTHER WORK

For the cleaner tailings, the kinetic testing program has confirmed that they are strongly acid generating, with lag times to acid generation ranging from 2 to 5 weeks and inversely proportional to their solids content. The actual lag time to acid generation may be longer than observed in the humidity cells, but cannot be determined defensibly from the laboratory results. Therefore, field testing of cleaner tailings is recommended to monitor their environmental behavior under ambient conditions and for a larger tailings mass. Recommendations for construction, instrumentation and monitoring of field cells can be provided as a separate submittal. Termination of the HCT program

for the cleaner tailings is recommended as this program is not likely to result in additional insights regarding ARD potential. Long-term water quality for the cleaner tailings can be estimated from available HCT leachate results as well as NAG leachate data.

The depletion calculations for the scavenger tailings indicate that their acid generating potential remains uncertain. Therefore, it is recommended that kinetic testing is continued for another 20 weeks after which available information is reviewed and recommendations regarding future testing is provided. Construction of scavenger tailings field cells in parallel with the proposed field program for cleaner tailings is recommended for completeness and to augment the HCT program, although operational placement of scavenger tailings is much less constrained by their environmental characteristics than the significantly more reactive cleaner tailings.

In the original scope of work, sulfide oxidation modeling using PYROX was proposed using the results from the kinetic testing. In particular, if paste were the only material to be tested, it would be attempted to calibrate the PYROX model against the paste HCT results and then extrapolate the model to evaluate materials of different moisture contents. Since the HCT program as implemented included both filter cake and thickened tailings in addition to paste, this objective of the PYROX modeling has become less relevant. Also, it is considered doubtful that the PYROX model is sufficiently sensitive that the relatively subtle changes in behavior between the various materials with different moisture contents can be reliably simulated. Therefore, it is recommended to postpone any PYROX modeling and implement the field cell program, where it is anticipated that the differences between the various materials will be more pronounced and PYROX modeling will be more meaningful.

6.0 REFERENCES

ASTM, 2000. D5744-6, standard test method for accelerated weathering of solid material using a modified humidity cell. *In* Annual Book of ASTM Standards, 11.04. American Society for Testing and Materials, West Conshohocken, Pennsylvania. 257 – 269.

Golder Associates Inc., 2007. Geochemical Characterization of Cleaner and Scavenger Tailings – Resolution Copper Project. December 2007.

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Acid Base Accounting (ABA) and Net Acid Generation (NAG) Results

	Parameter	Unit	Cleaner	Scavenger
Acid Base Accounting (ABA)	Paste pH	su	7.25	7.52
	Total S	%	36.1	0.38
	S(SO ₄)	%	5.30	0.26
	S(S ⁻²)	%	30.7	0.08
	S(residual)	%	0.08	0.04
	AP	kg CaCO ₃ /ton	960	2.5
	NP	kg CaCO ₃ /ton	2.2	4.4
	NNP	kg CaCO ₃ /ton	-958	1.9
	NPR		< 0.01	1.8
Net Acid Generation (NAG)	NAG pH after reaction	su	2.20	4.51
	NAG to pH 4.5	kg H ₂ SO ₄ /ton	49.8	-
	NAG to pH 7.0	kg H ₂ SO ₄ /ton	60.6	2.35

Arizona Aquifer Water Quality Standards

Parameter	Unit	AAWQS
Alkalinity	mg/L	
Spec. Cond.	umhos/cm	
pH	su	6 to 9
TDS	mg/L	
Calcium	mg/L	
Chloride	mg/L	
Fluoride	mg/L	4.0
Hardness	mg/L	
Magnesium	mg/L	
Potassium	mg/L	
Sodium	mg/L	
Sulfate	mg/L	
Metals		
Aluminum	mg/L	
Antimony	mg/L	0.006
Arsenic	mg/L	0.05
Barium	mg/L	2.0
Beryllium	mg/L	0.004
Cadmium	mg/L	0.005
Chromium	mg/L	0.1
Cobalt	mg/L	
Copper	mg/L	
Iron	mg/L	
Lead	mg/L	0.05
Manganese	mg/L	
Mercury	mg/L	0.002
Molybdenum	mg/L	
Selenium	mg/L	0.05
Silicon	mg/L	
Silver	mg/L	
Thallium	mg/L	0.002
Uranium	mg/L	
Vanadium	mg/L	
Zinc	mg/L	

AAWQS - Arizona Aquifer Water Quality Standards

Kinetic Testing Results - Acid Generation and Neutralization Depletion Rates

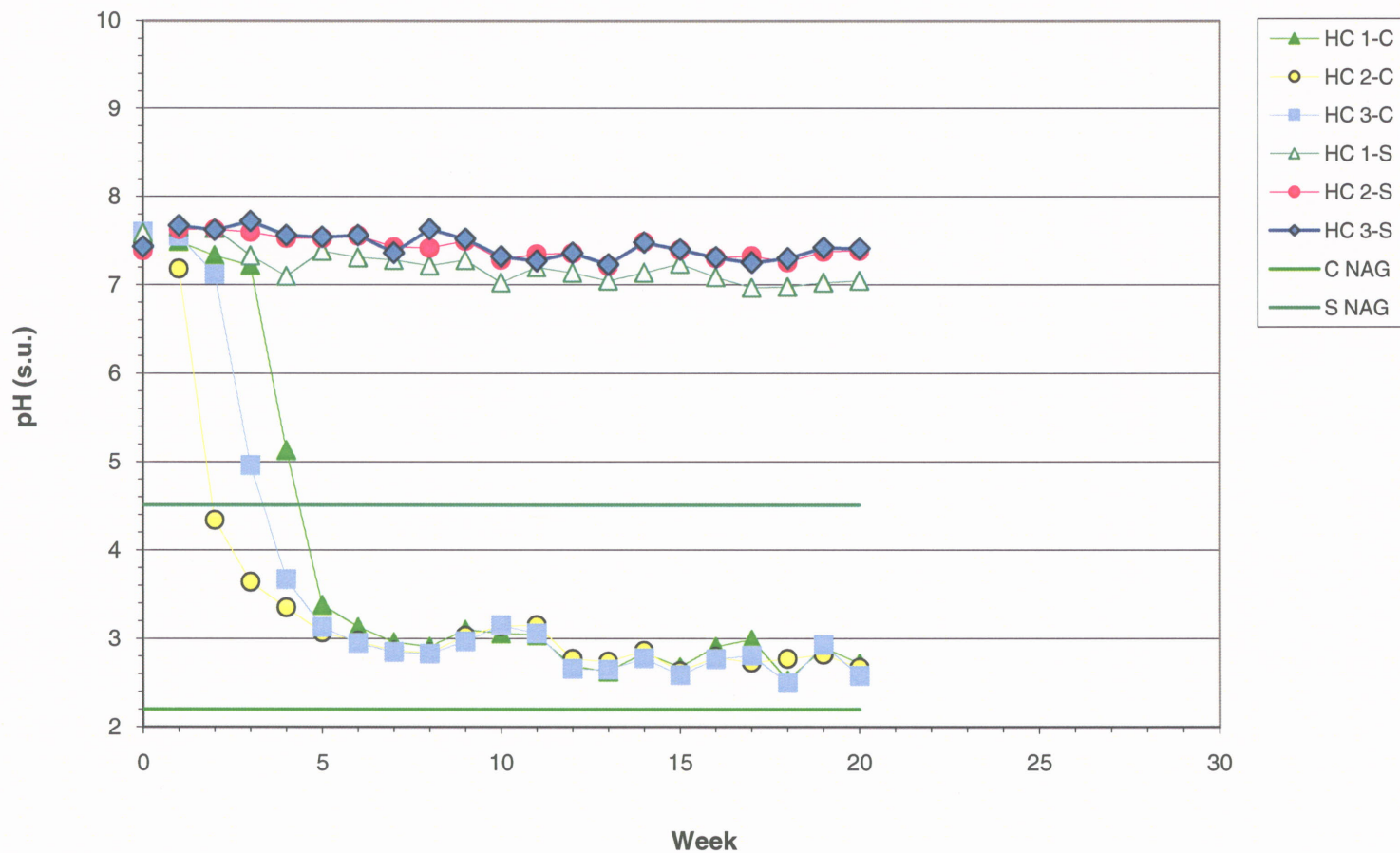
HCT	Sample	Material Type	Total Sulfur wt. %	Sulfide Sulfur (Total Sulfur - Sulfate Sulfur) wt. %	NP t CaCO ₃ /1000 t	AP t CaCO ₃ /1000 t	NPR t CaCO ₃ /1000 t	NAG pH s.u.	Acid Generation Rate mg SO ₄ /kg/wk	Neutralization Potential Consumption Rate mg CaCO ₃ /kg/wk	Time to Sulfide Depletion years	Time to NP Exhaustion - Alkalinity years	Time to NP Exhaustion - Ca Based years	Time for Sulfide Depletion > Time for NP Exhaustion
HC-1-C	Cleaner	Thickened	36.1	30.8	2.2	963	0.002	2.20	540.4	553	32	0	0	yes
HC-2-C	Cleaner	Filter Cake	36.1	30.8	2.2	963	0.002	2.20	761.0	821	23	0	0	yes
HC-3-C	Cleaner	Paste	36.1	30.8	2.2	963	0.002	2.20	814.2	854	21	0	0	yes
HC-1-S	Scavenger	Thickened	0.38	0.38	4.4	11.9	0.4	4.51	63.5	70	1.6	0	0	yes
HC-2-S	Scavenger	Filter Cake	0.38	0.38	4.4	11.9	0.4	4.51	132.5	142	0.8	0	0	yes
HC-3-S	Scavenger	Paste	0.38	0.38	4.4	11.9	0.4	4.51	121.0	130	0.9	0	0	yes

Notes:

Sulfide sulfur equal to total sulfur minus sulfate sulfur (non-detect sulfate sulfur assumed equal to zero in calculation).

Acid generation and neutralization depletion rates calculated from last five weeks of data.

FIGURES

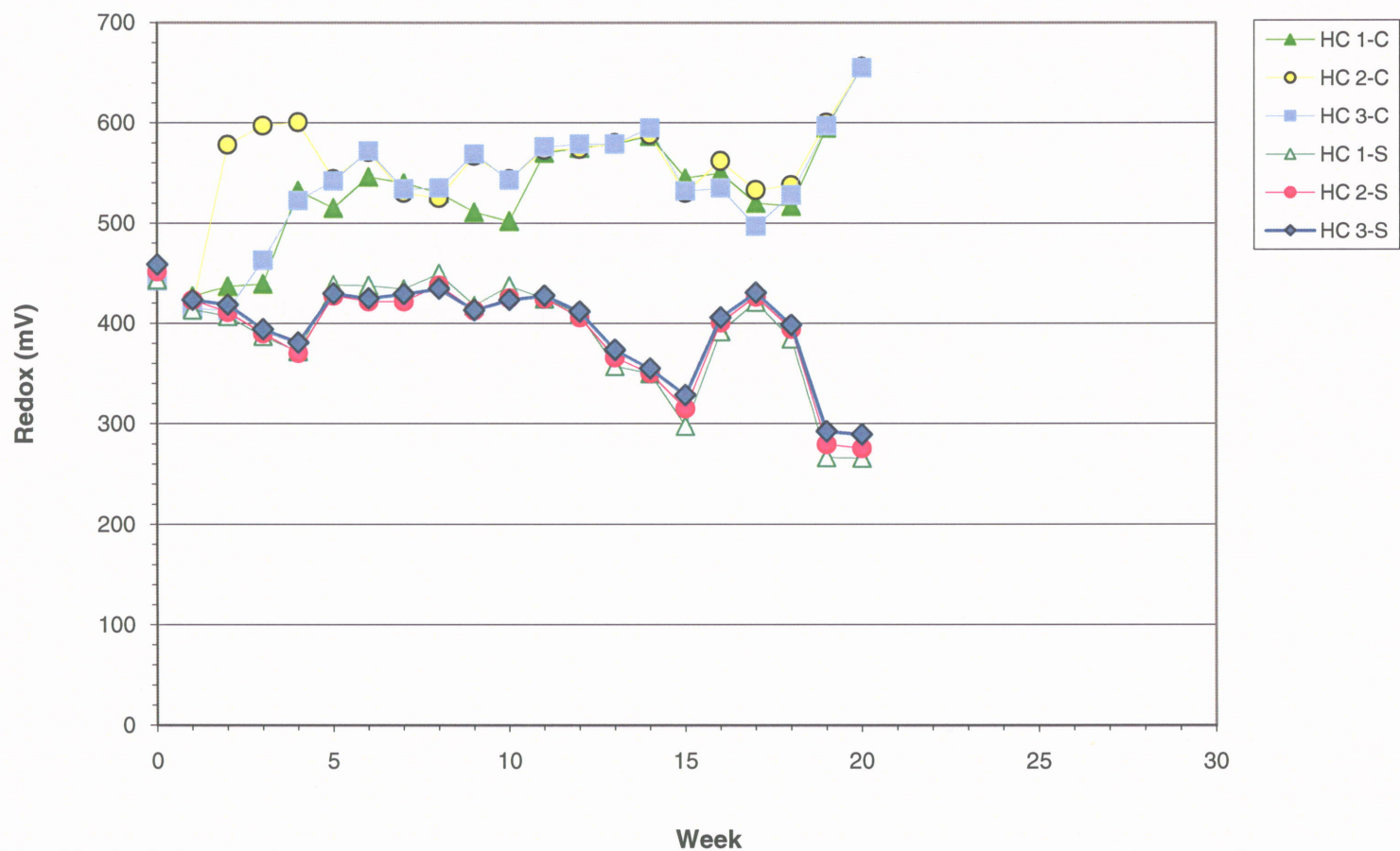


Resolution

TITLE

Kinetic Testing Results - pH

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Resolution

TITLE

Kinetic Testing Results - Redox

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

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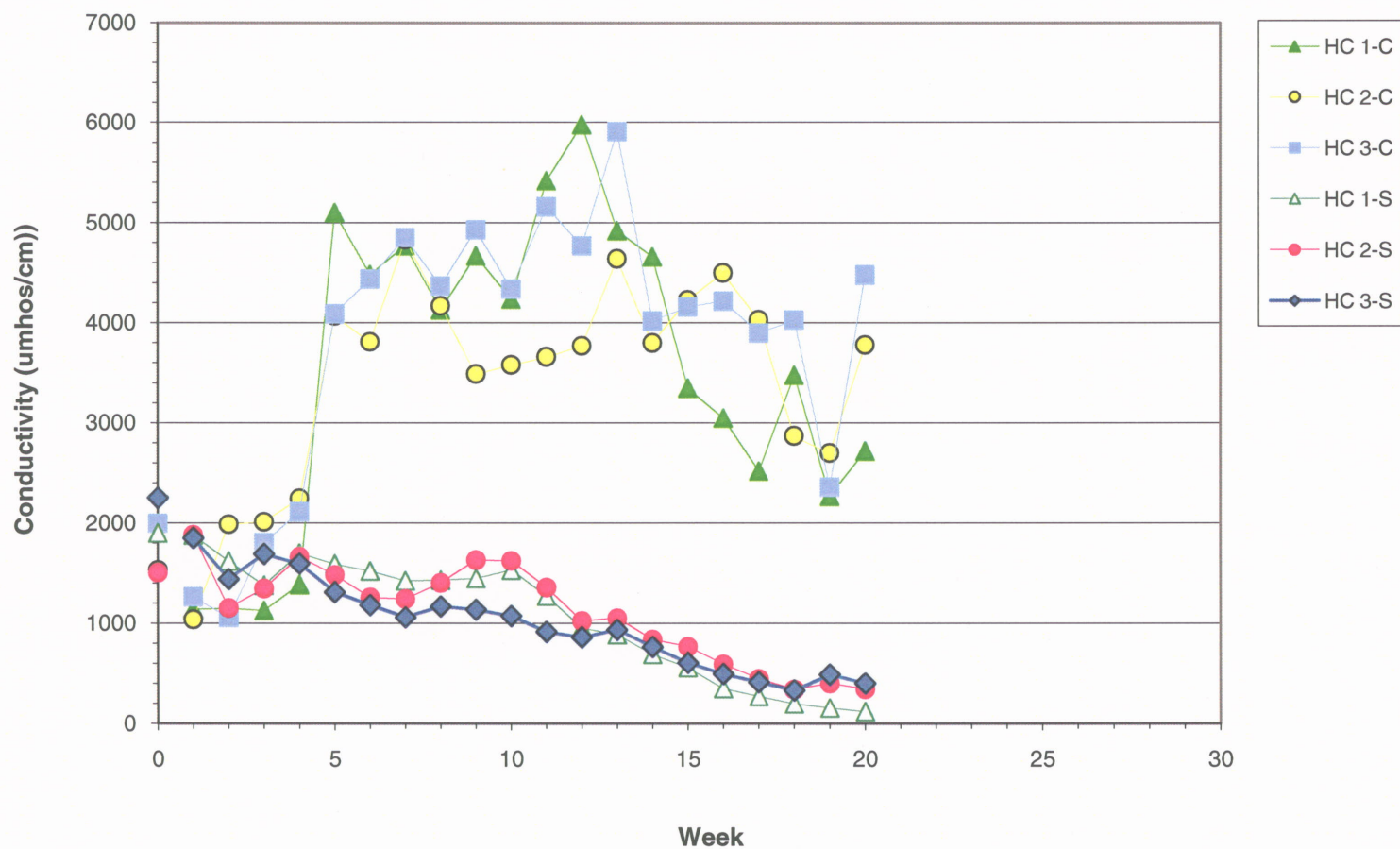
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FIGURE NO.

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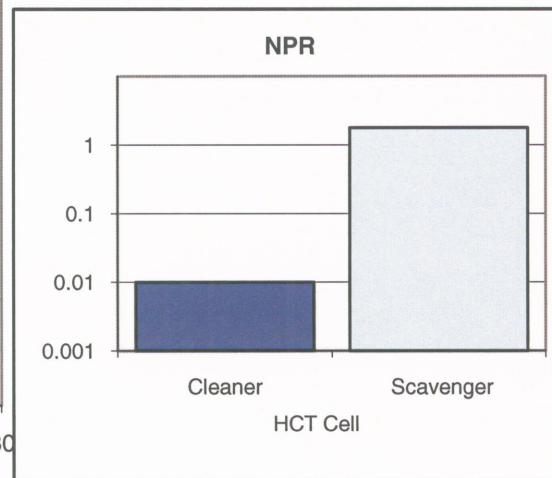
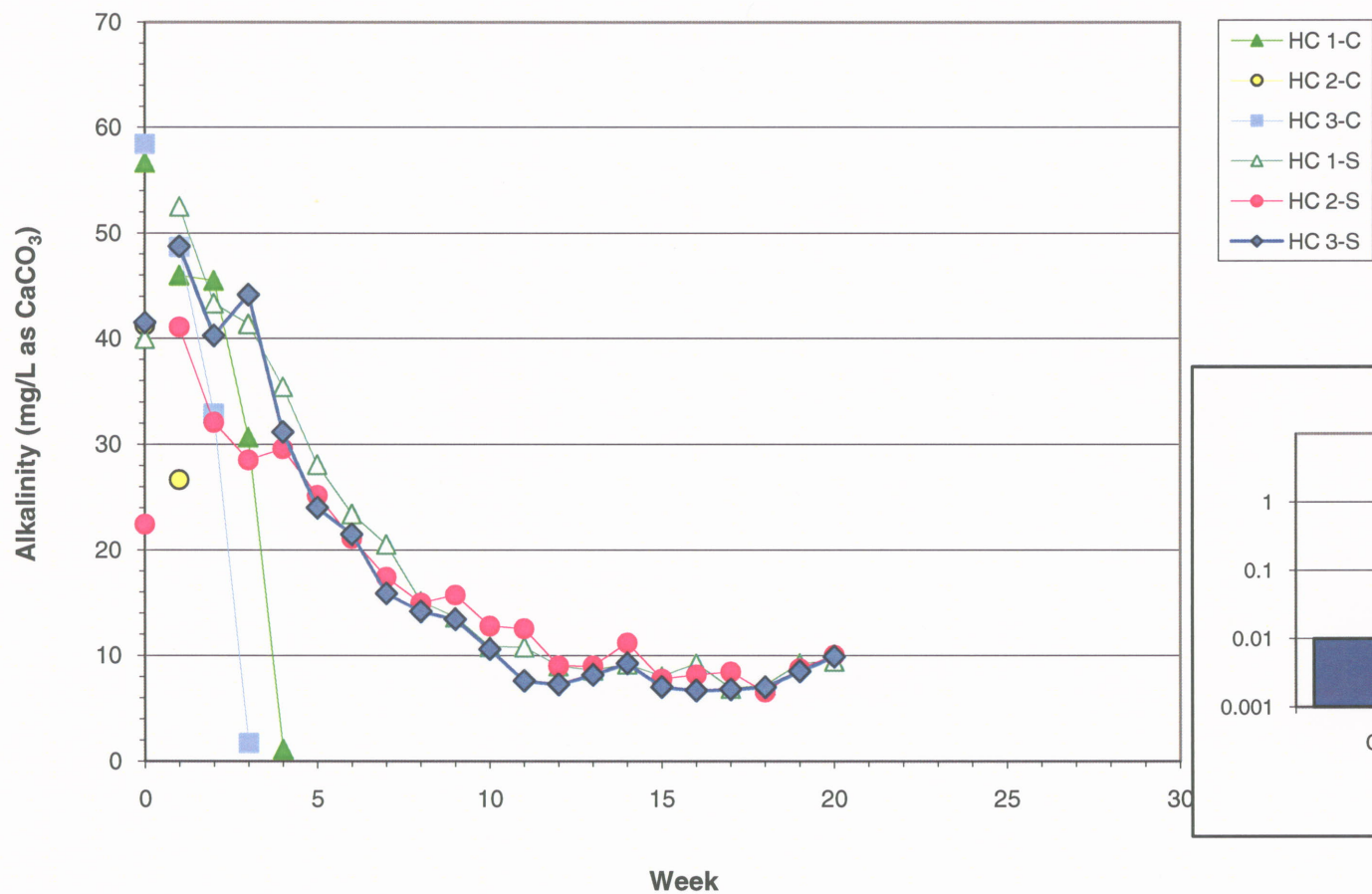


Resolution

TITLE

Kinetic Testing Results - Conductivity

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Note: Values below detectable limits shown at the detection limit.

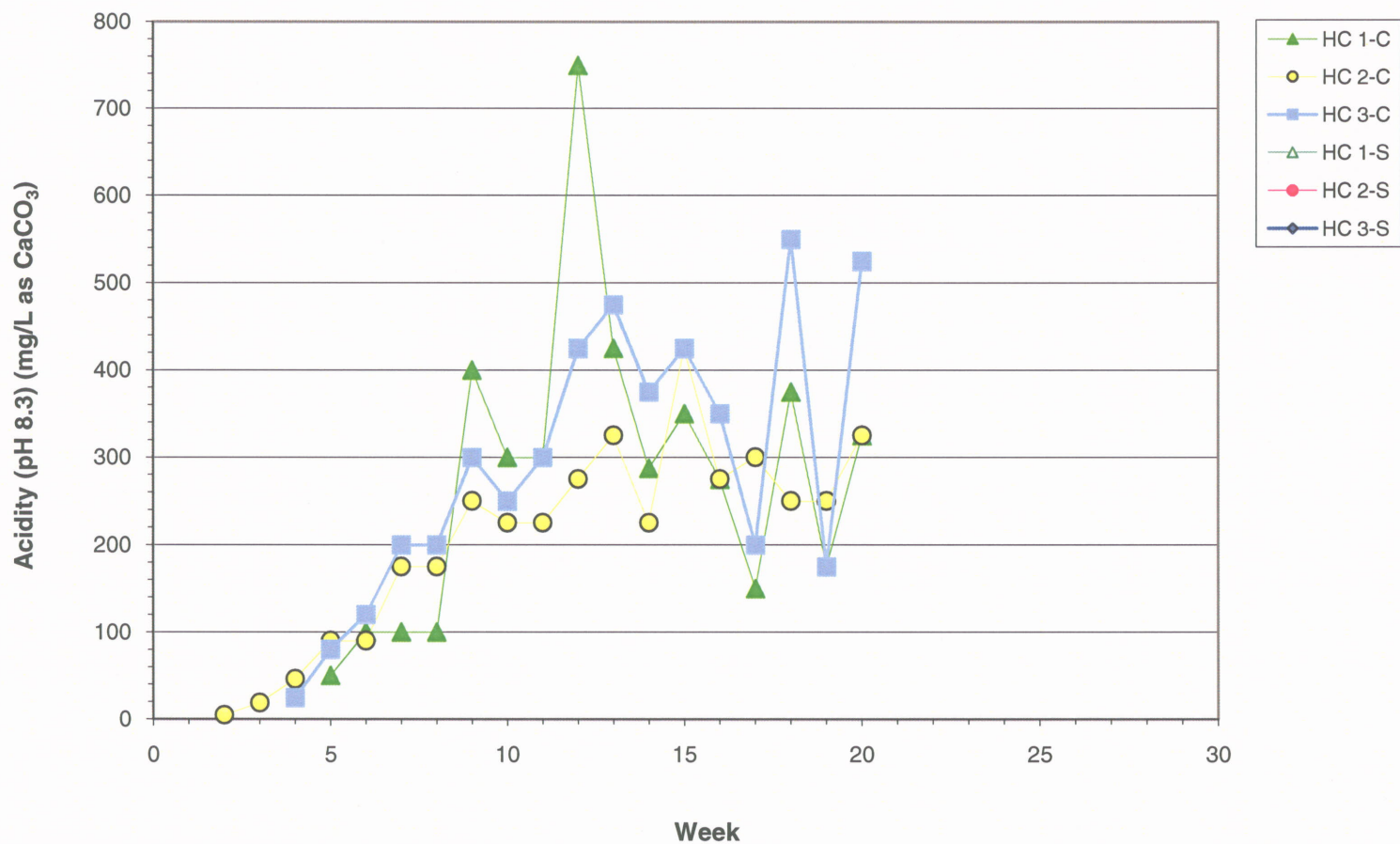


Resolution

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Kinetic Testing Results - Alkalinity

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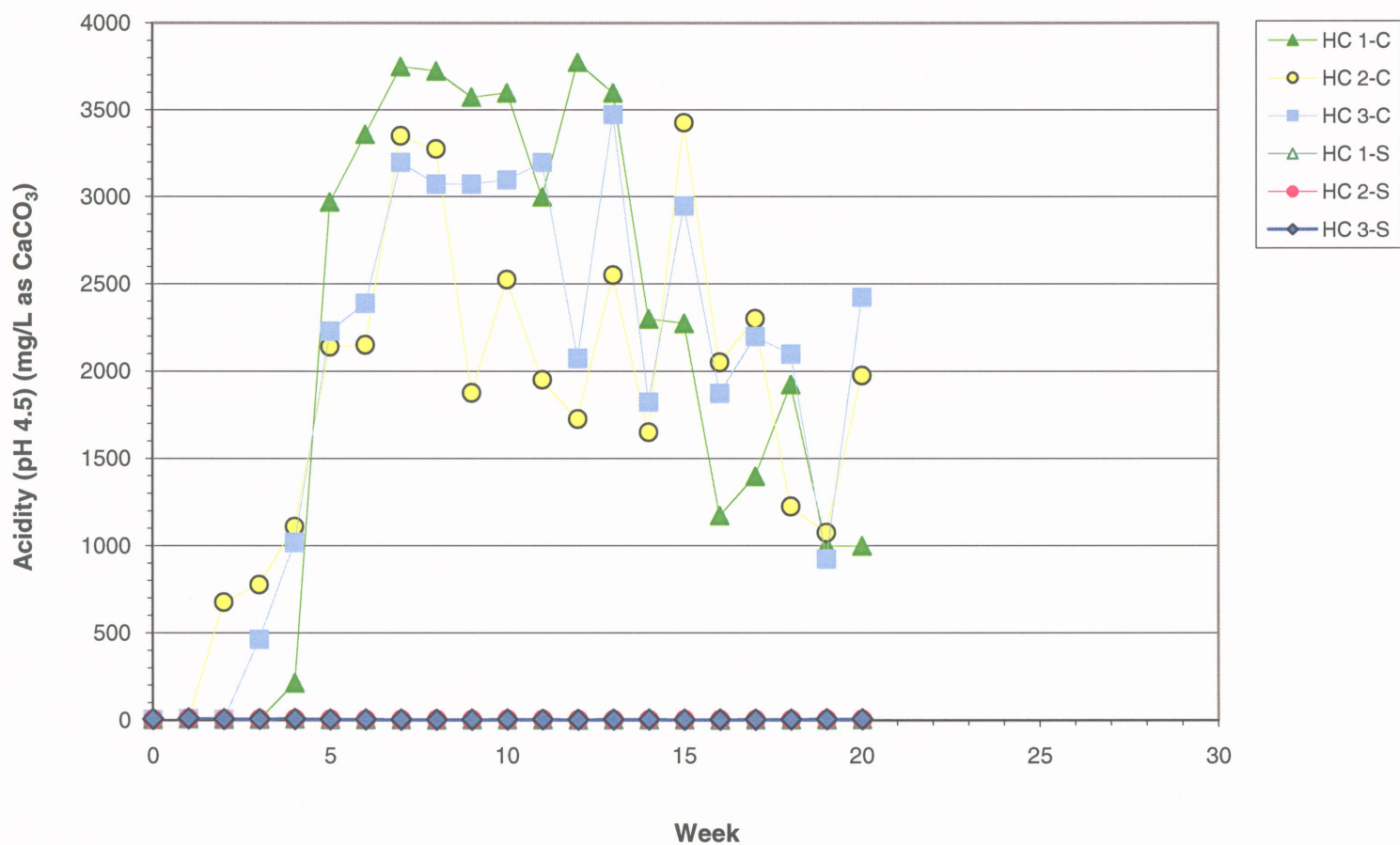


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TITLE

Kinetic Testing Results - Acidity (pH 4.5)

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Note: Values below detectable limits shown at the detection limit.



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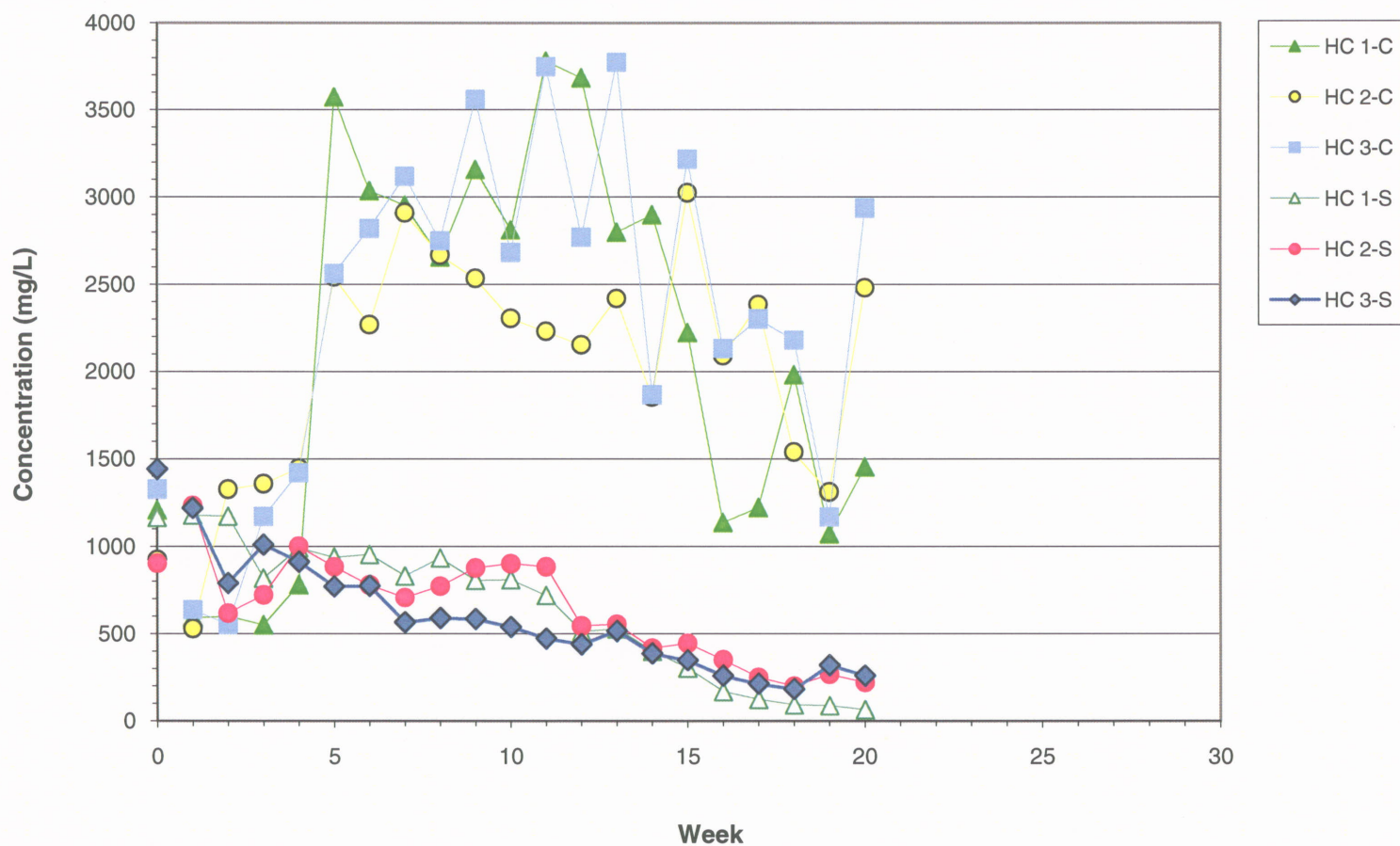
Kinetic Testing Results - Acidity (pH 8.3)

Resolution

DRAWN MH
CHECKED RV
REVIEWED RV

DATE Feb-08
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JOB NO. 073-92548
DWG. NO.
FIGURE NO. 6



Note: Values below detectable limits shown at the detection limit.

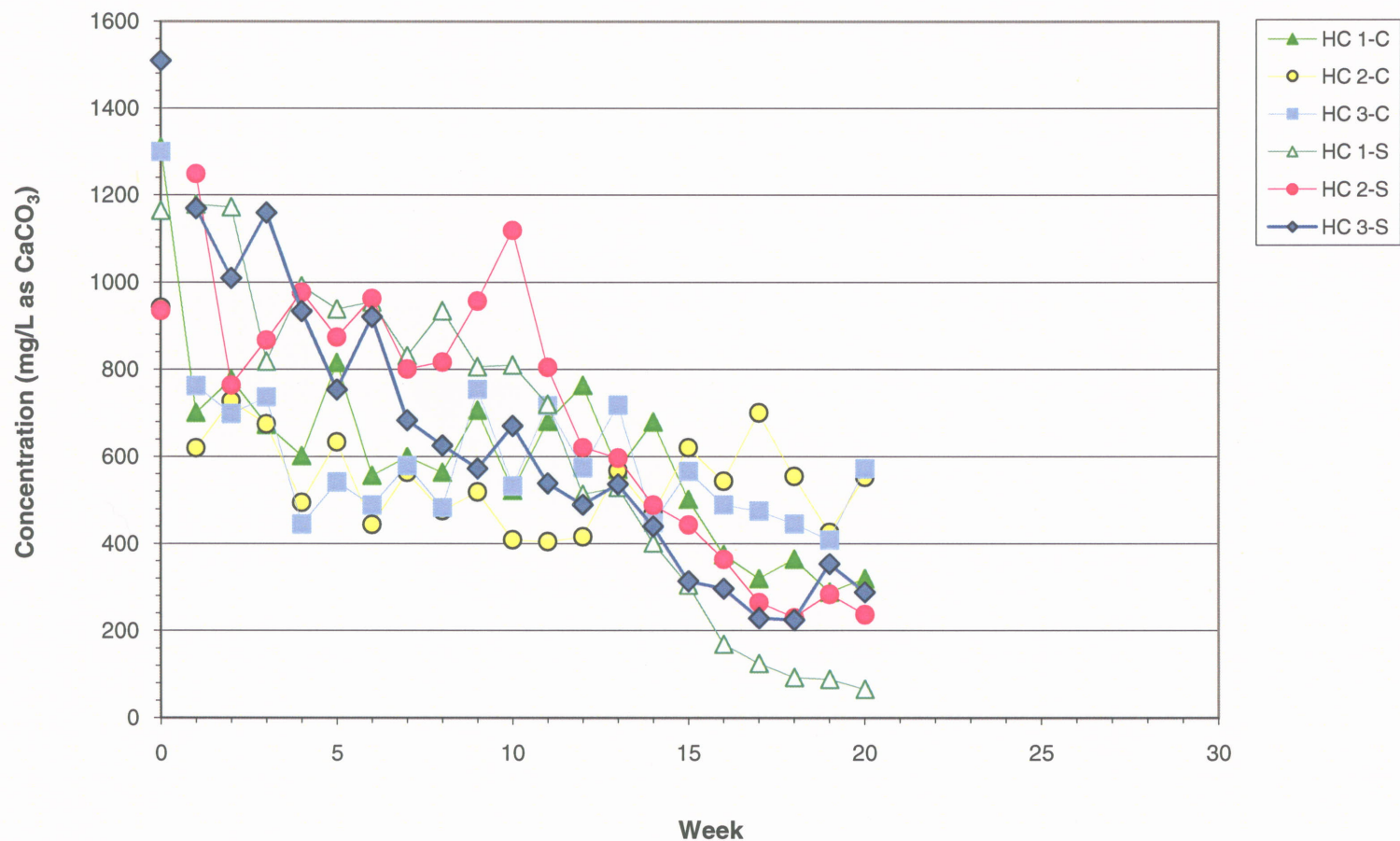


Resolution

TITLE

Kinetic Testing Results - Sulfate

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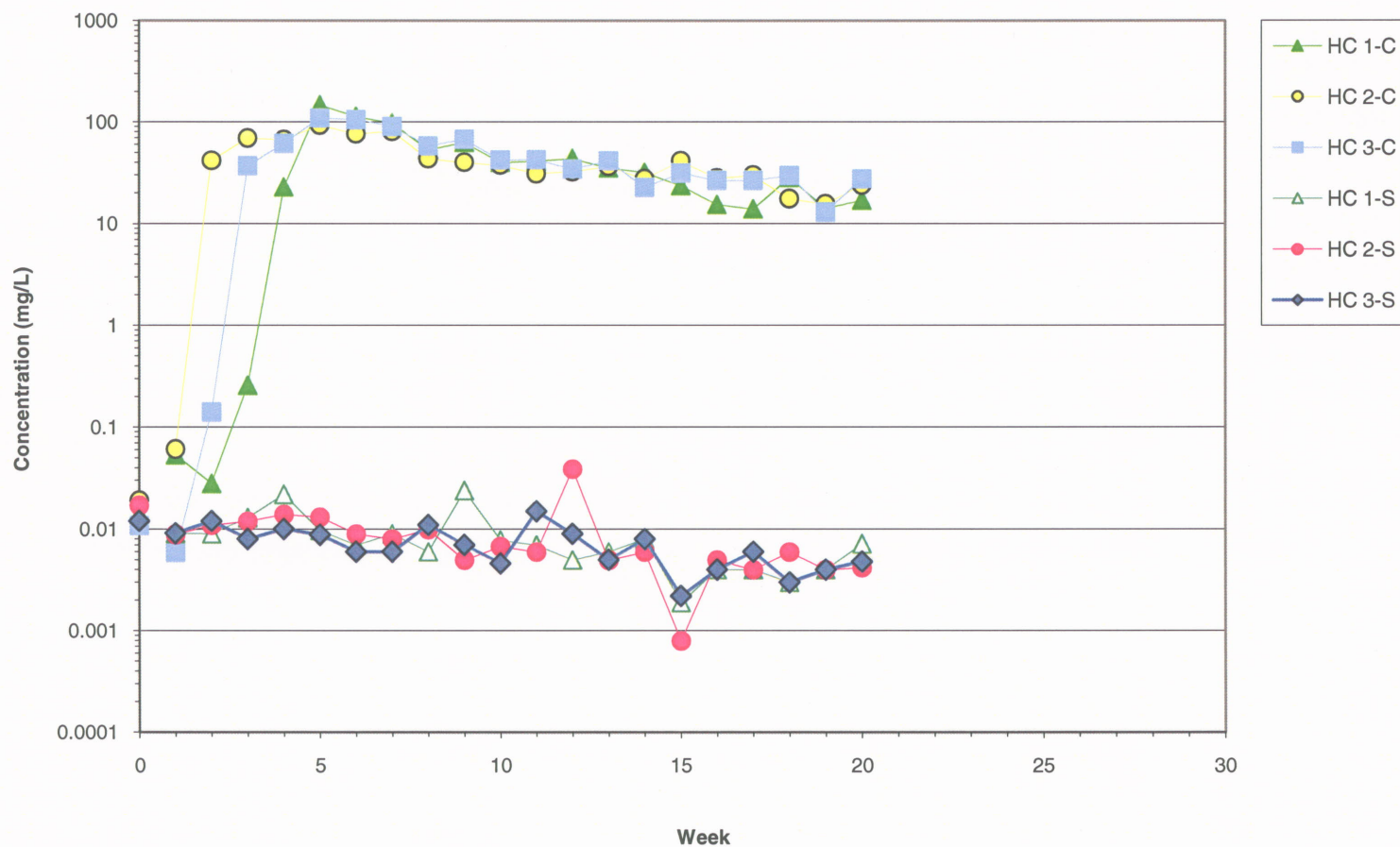


Resolution

TITLE

Kinetic Testing Results - Hardness

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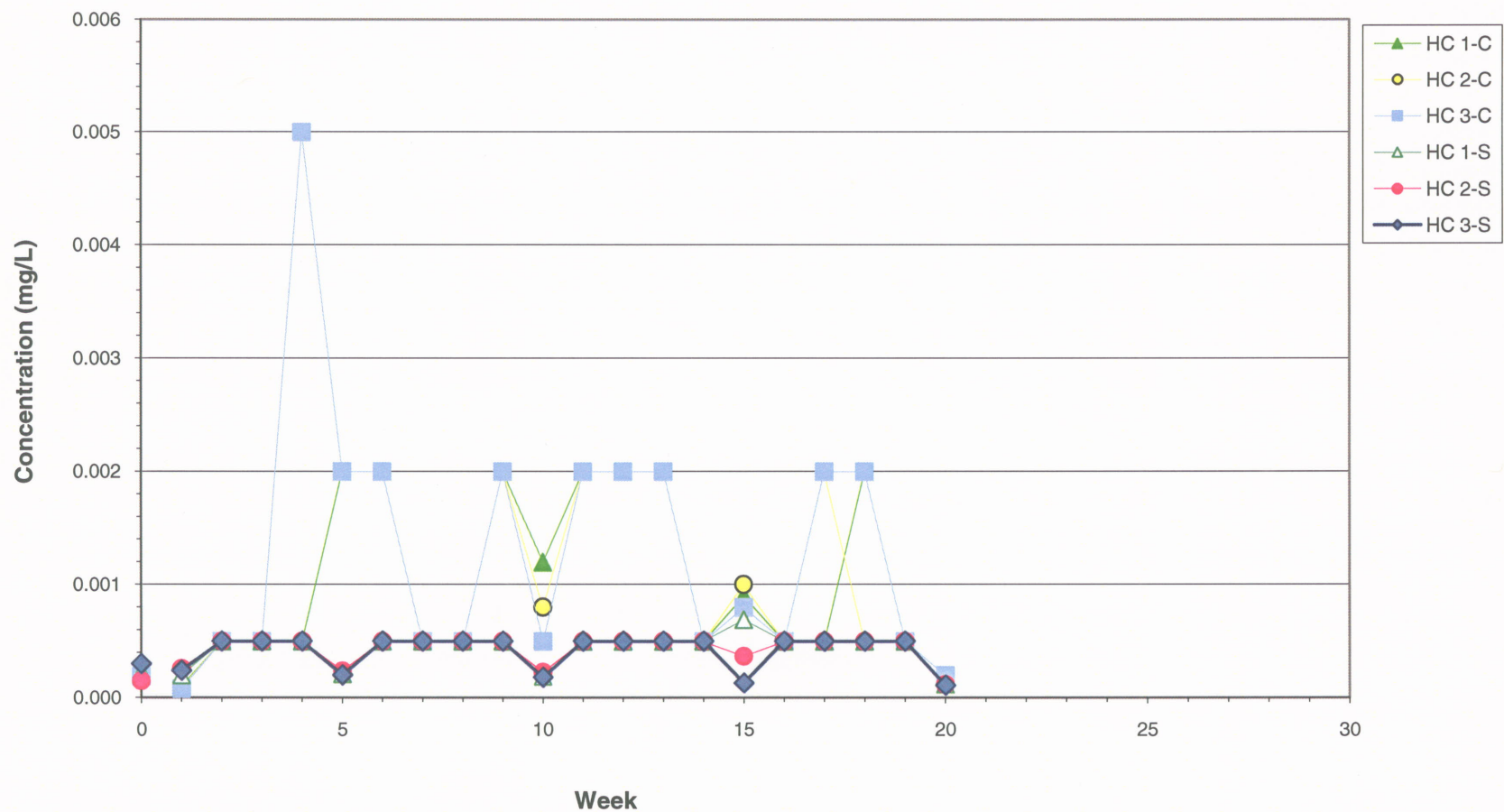


Resolution

TITLE

Kinetic Testing Results - Aluminum (Al)

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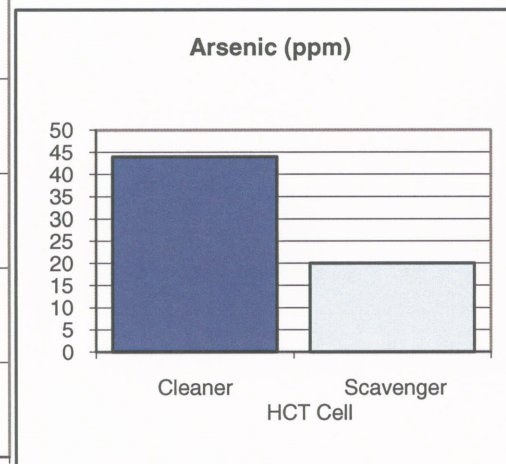
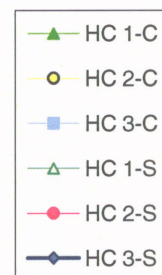
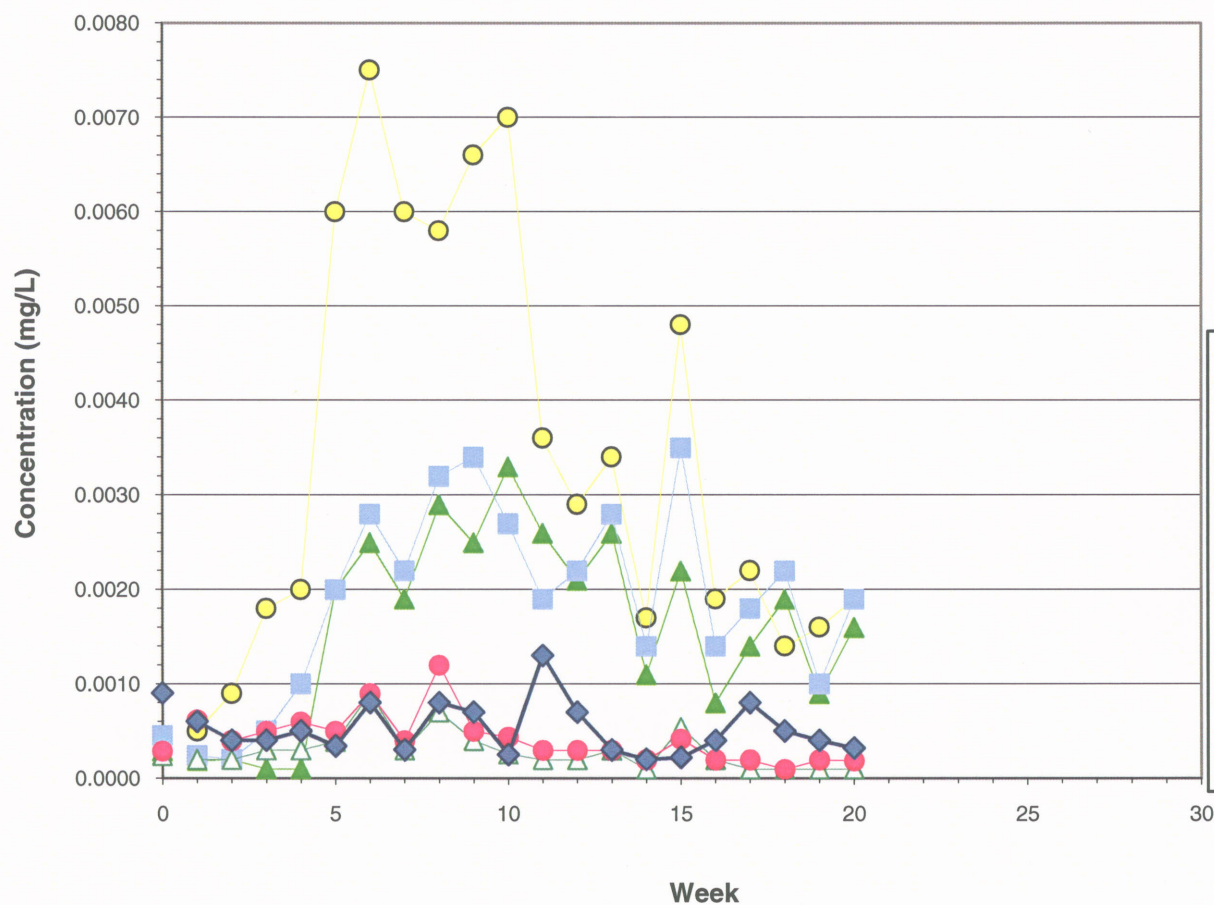


Resolution

TITLE

Kinetic Testing Results - Antimony (Sb)

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Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Arsenic (As)

DRAWN MH

DATE Apr-06

JOB NO. 073-92548

CHECKED RV

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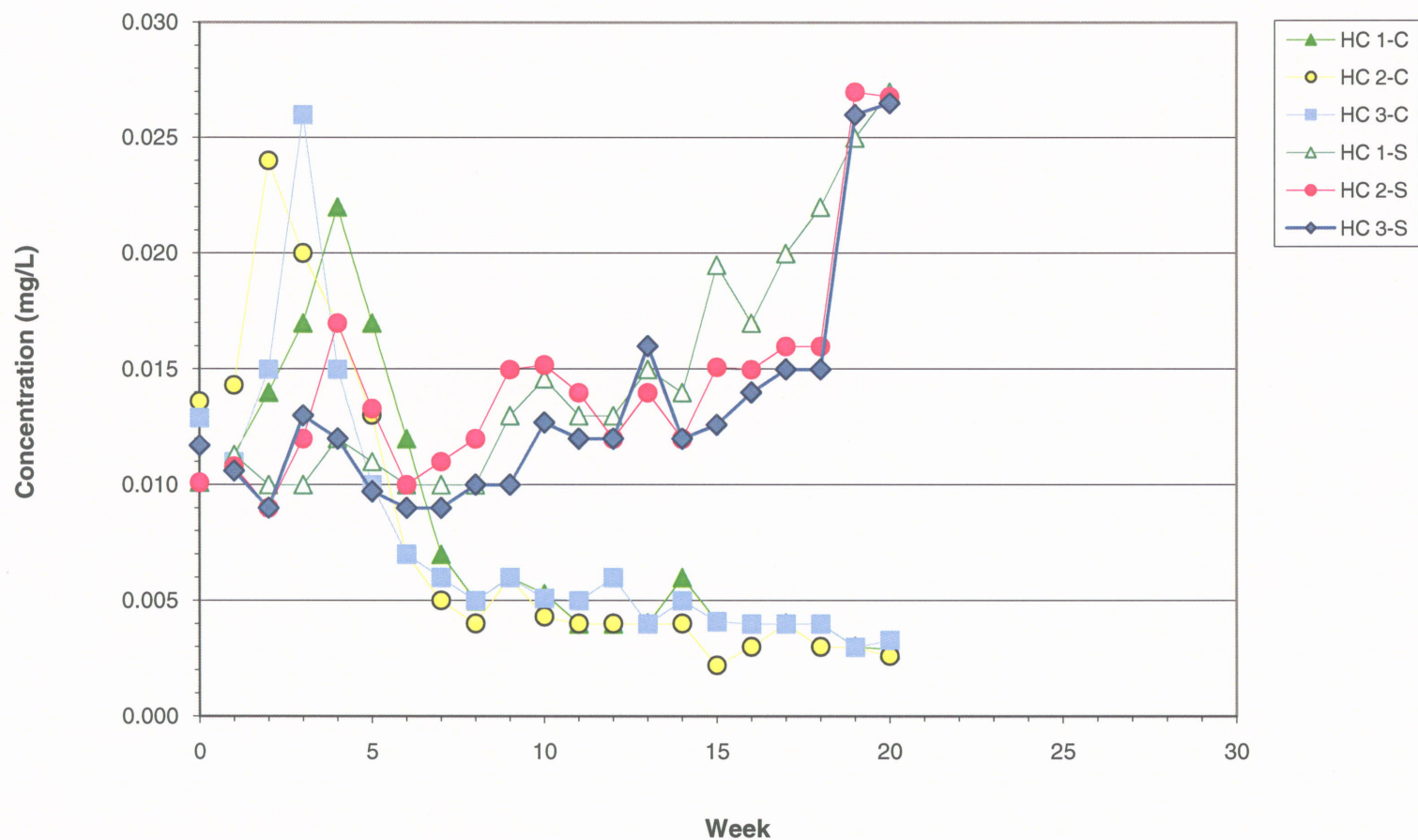
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11



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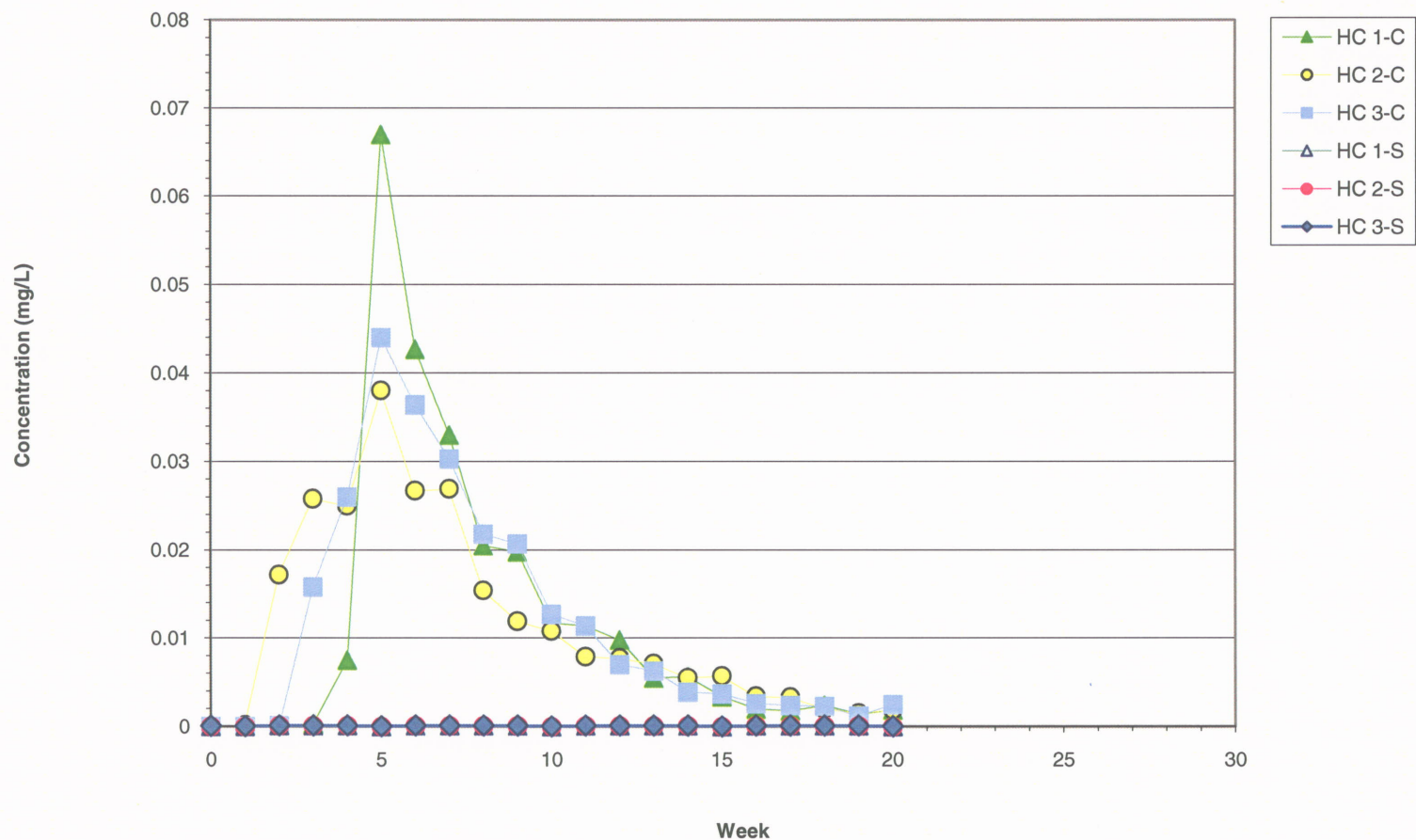


Resolution

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Kinetic Testing Results - Barium (Ba)

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Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Beryllium (Be)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

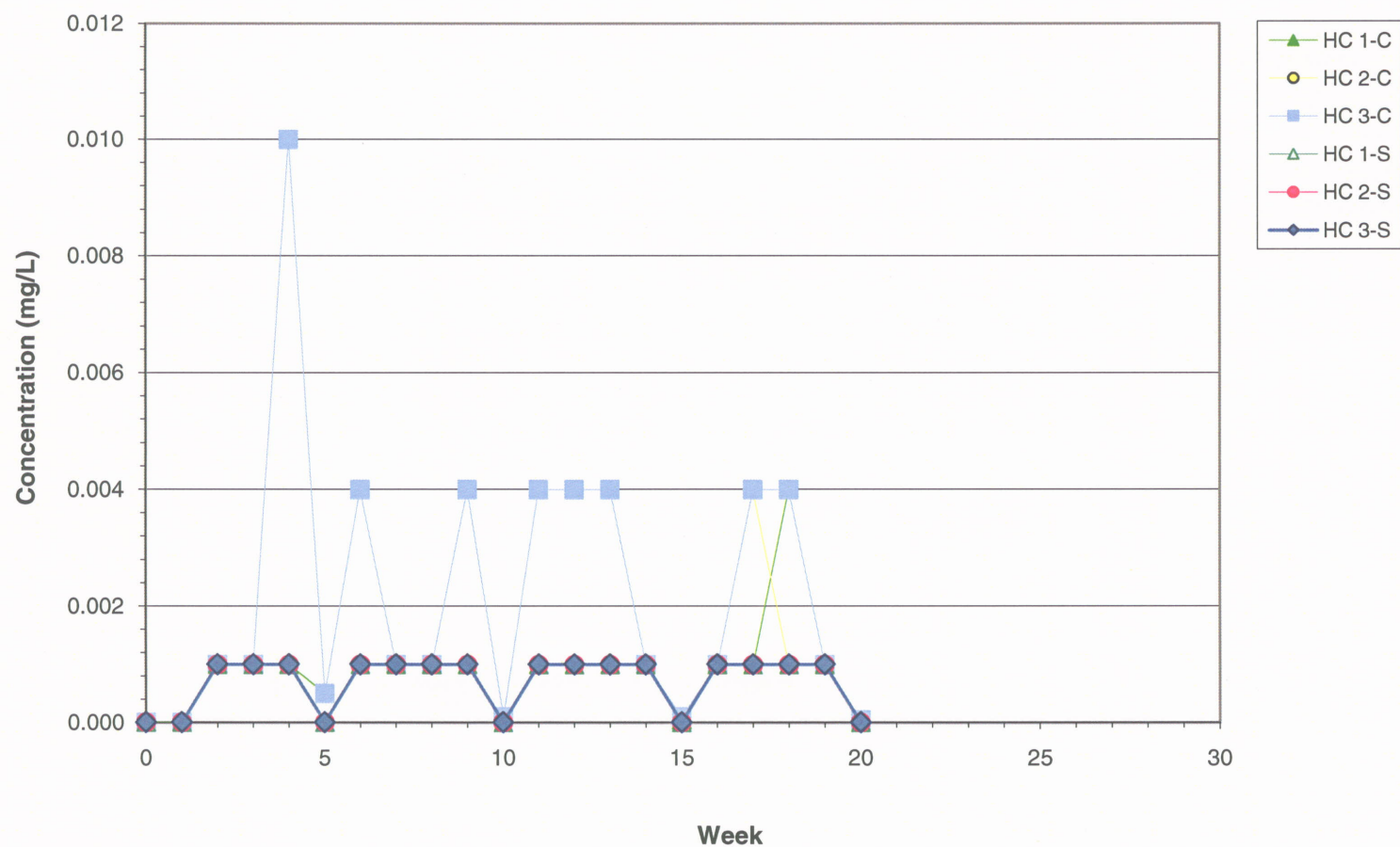
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REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 13



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Bismuth (Bi)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

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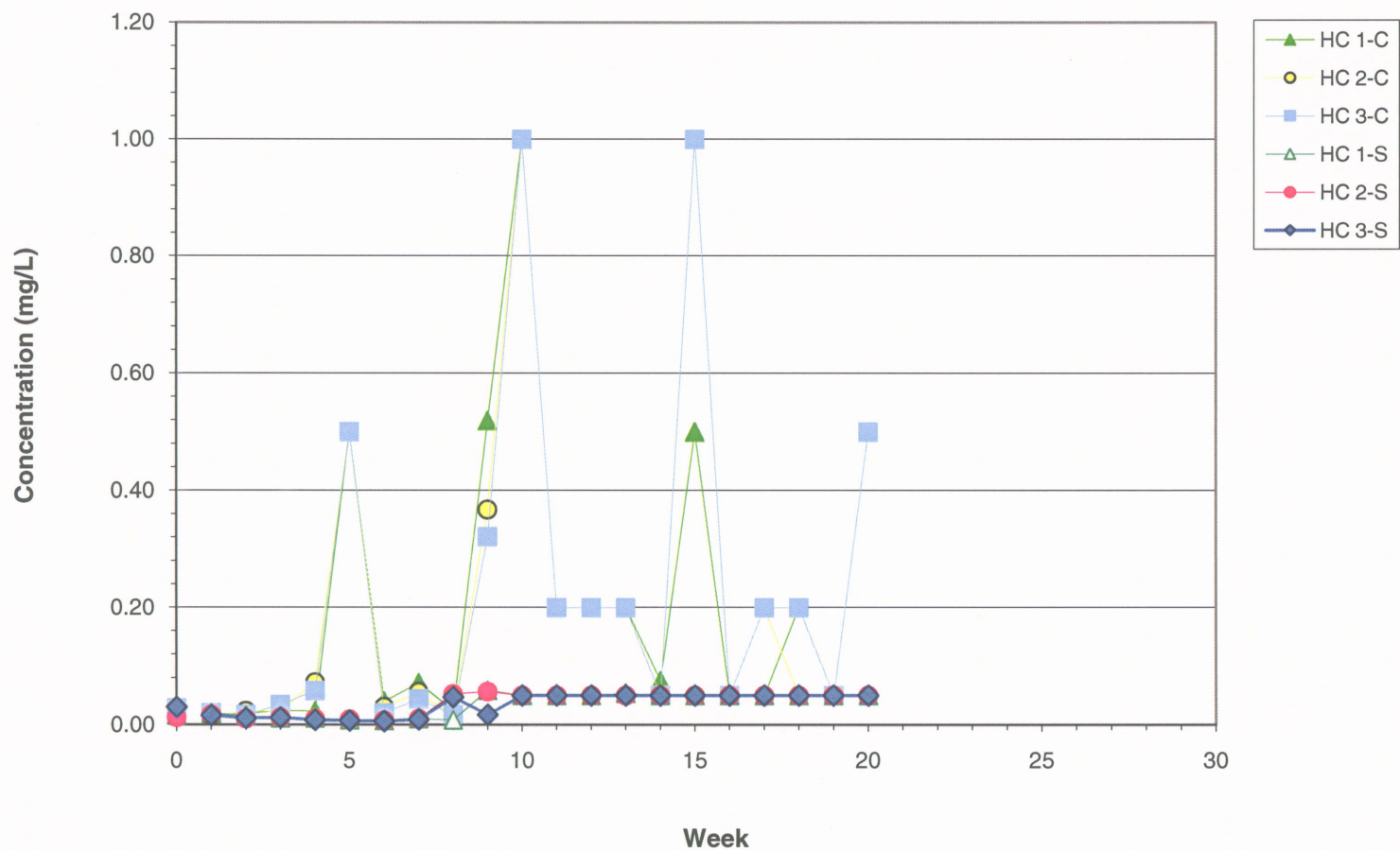
DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO.

14



Note: Values below detectable limits shown at the detection limit.

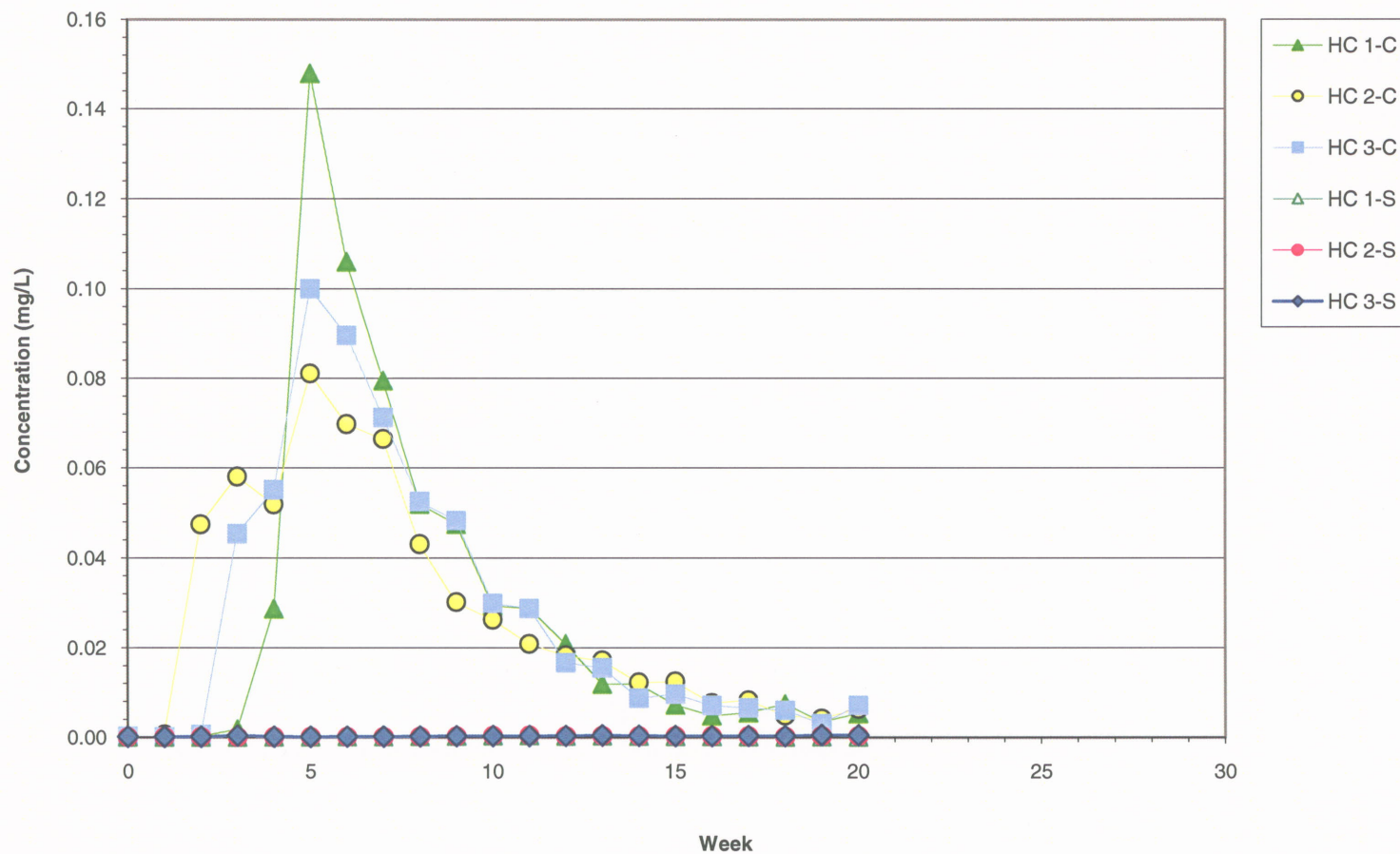


Resolution

TITLE

Kinetic Testing Results - Boron (B)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xls	FIGURE NO.	15



Note: Values below detectable limits shown at the detection limit.

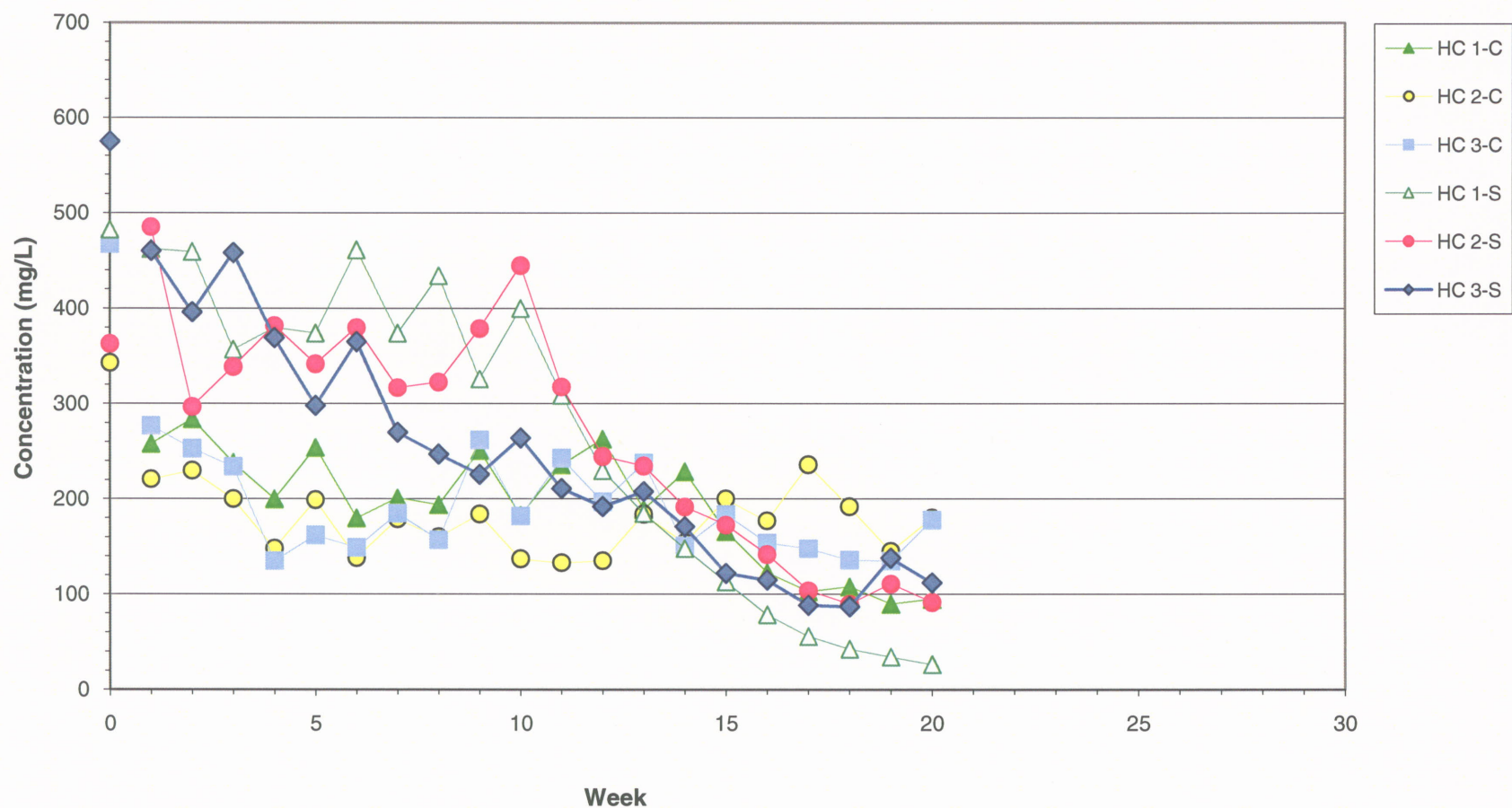


Resolution

TITLE

Kinetic Testing Results - Cadmium (Cd)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	16



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Calcium (Ca)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

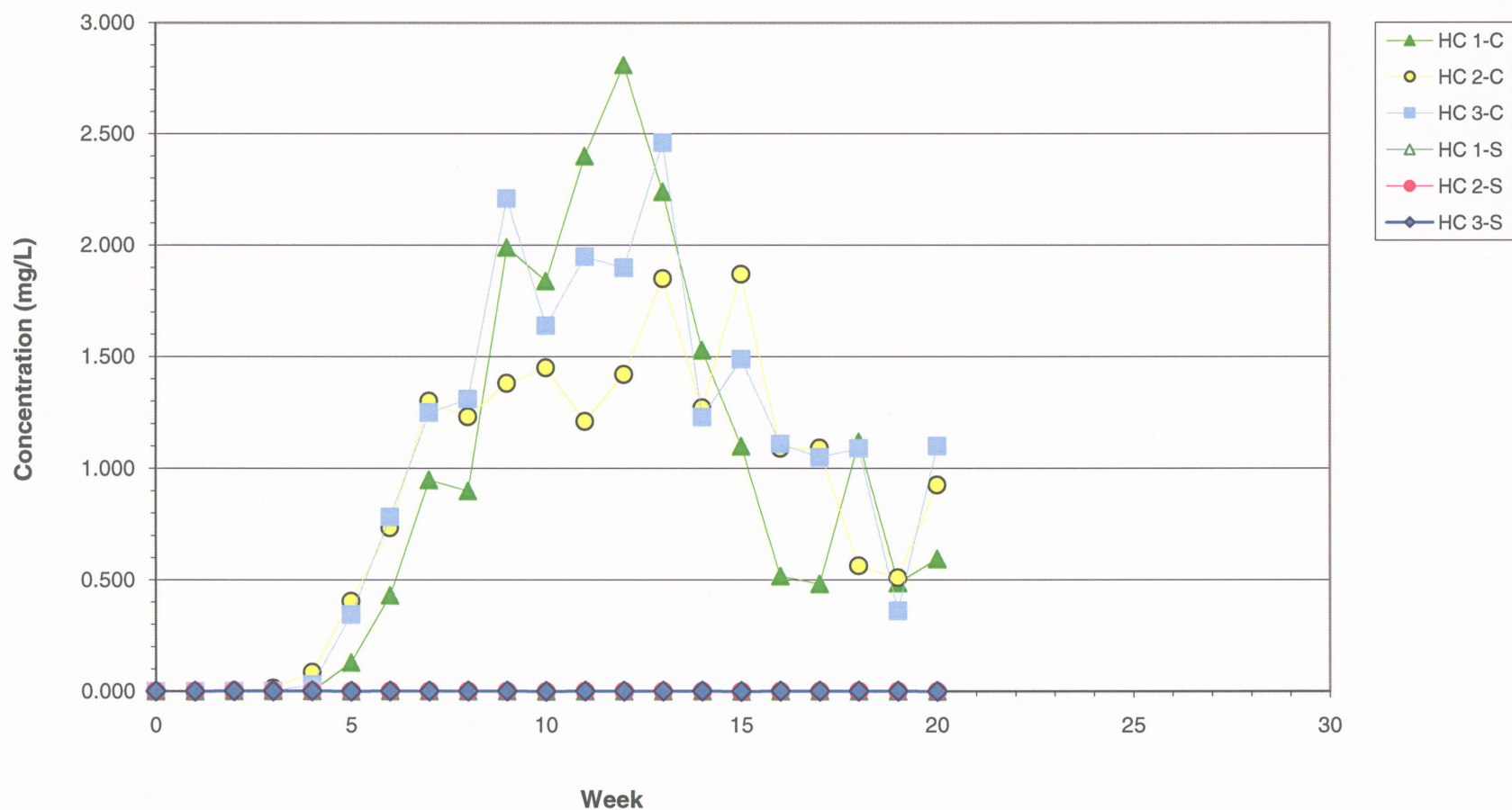
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 17



Note: Values below detectable limits shown at the detection limit.

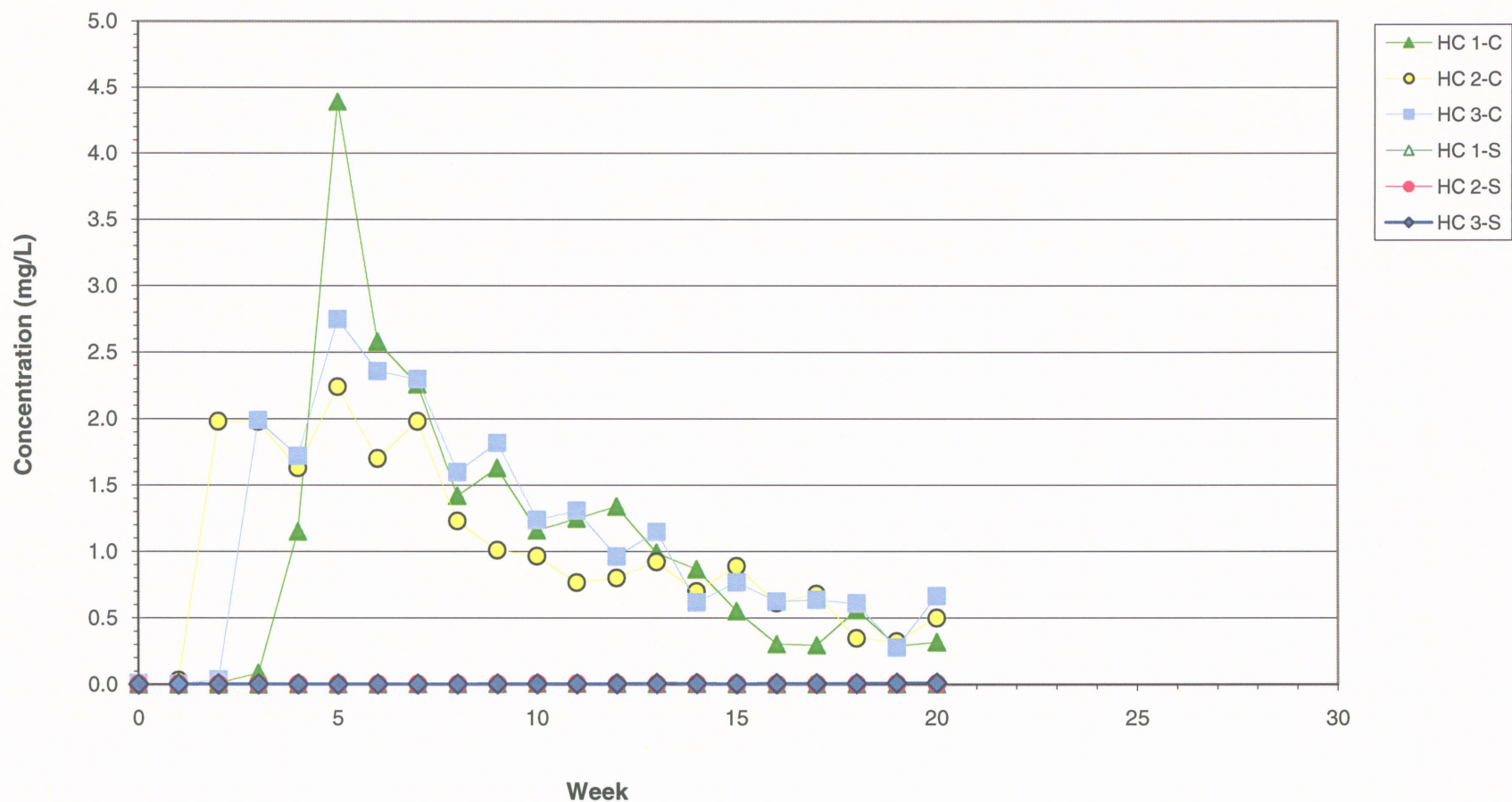


Resolution

TITLE

Kinetic Testing Results - Chromium (Cr)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	18



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Cobalt (Co)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

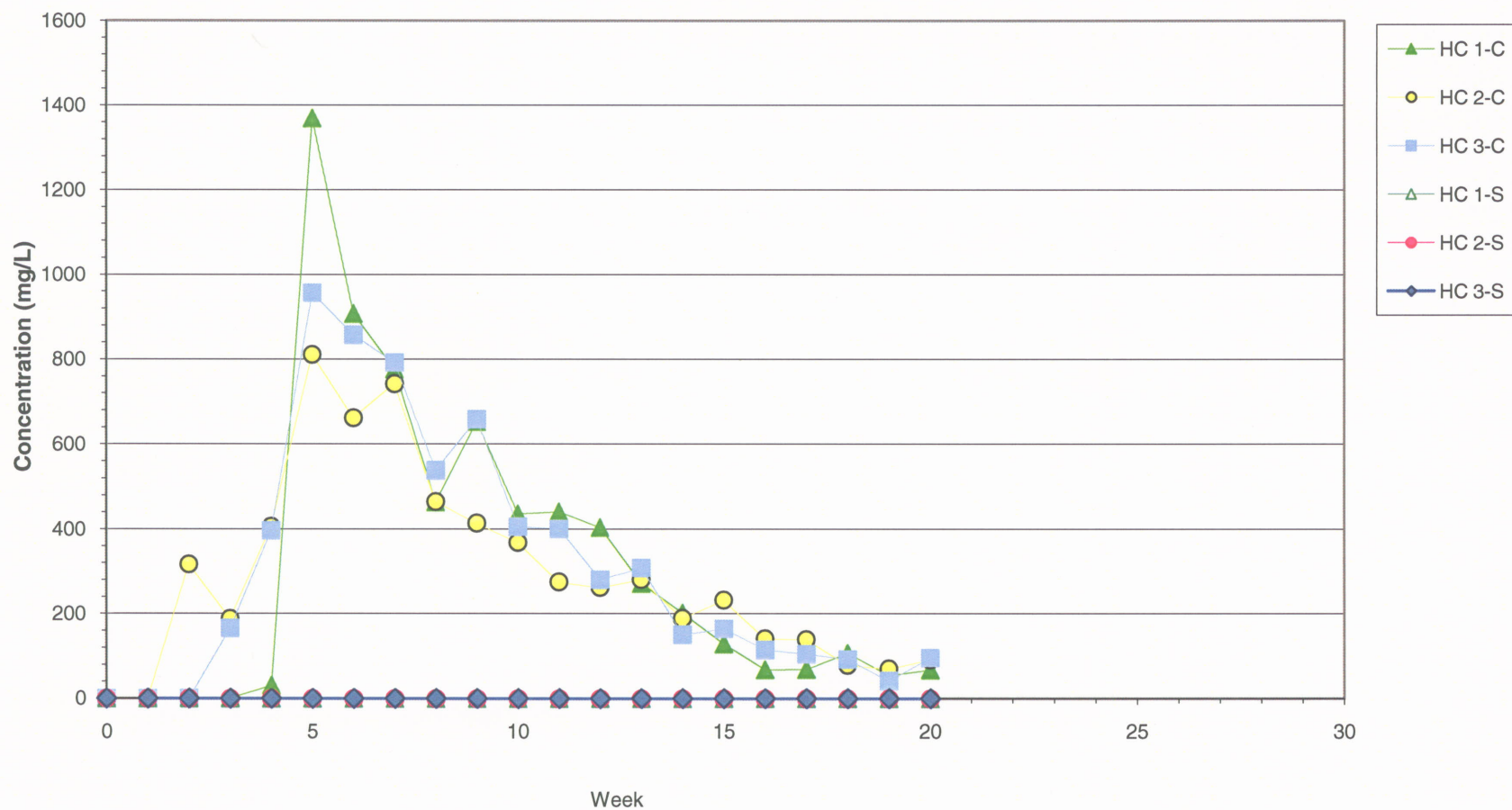
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 19



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Copper (Cu)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

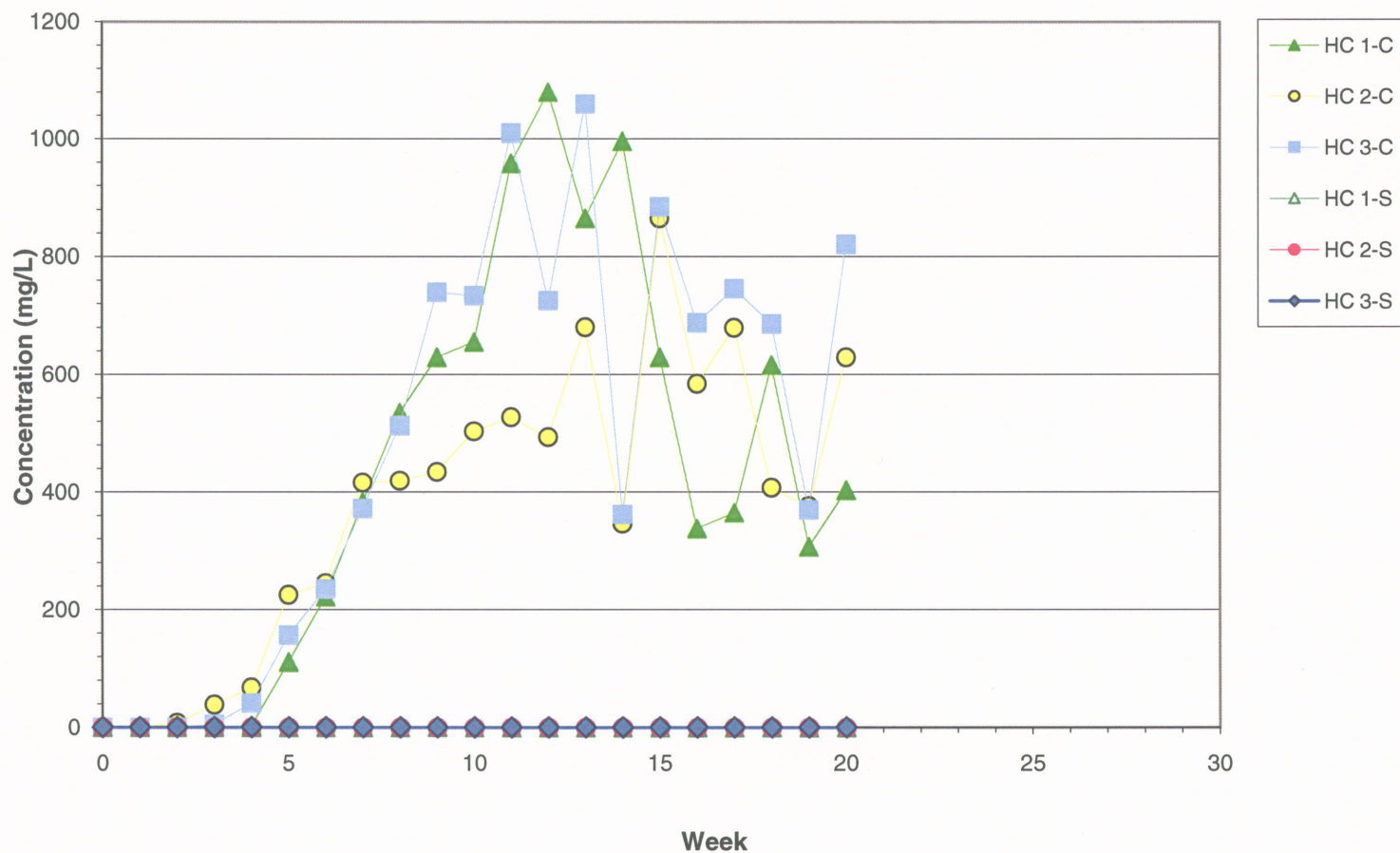
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 20



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Iron (Fe)

DRAWN MH

CHECKED RV

REVIEWED RV

DATE Feb-08

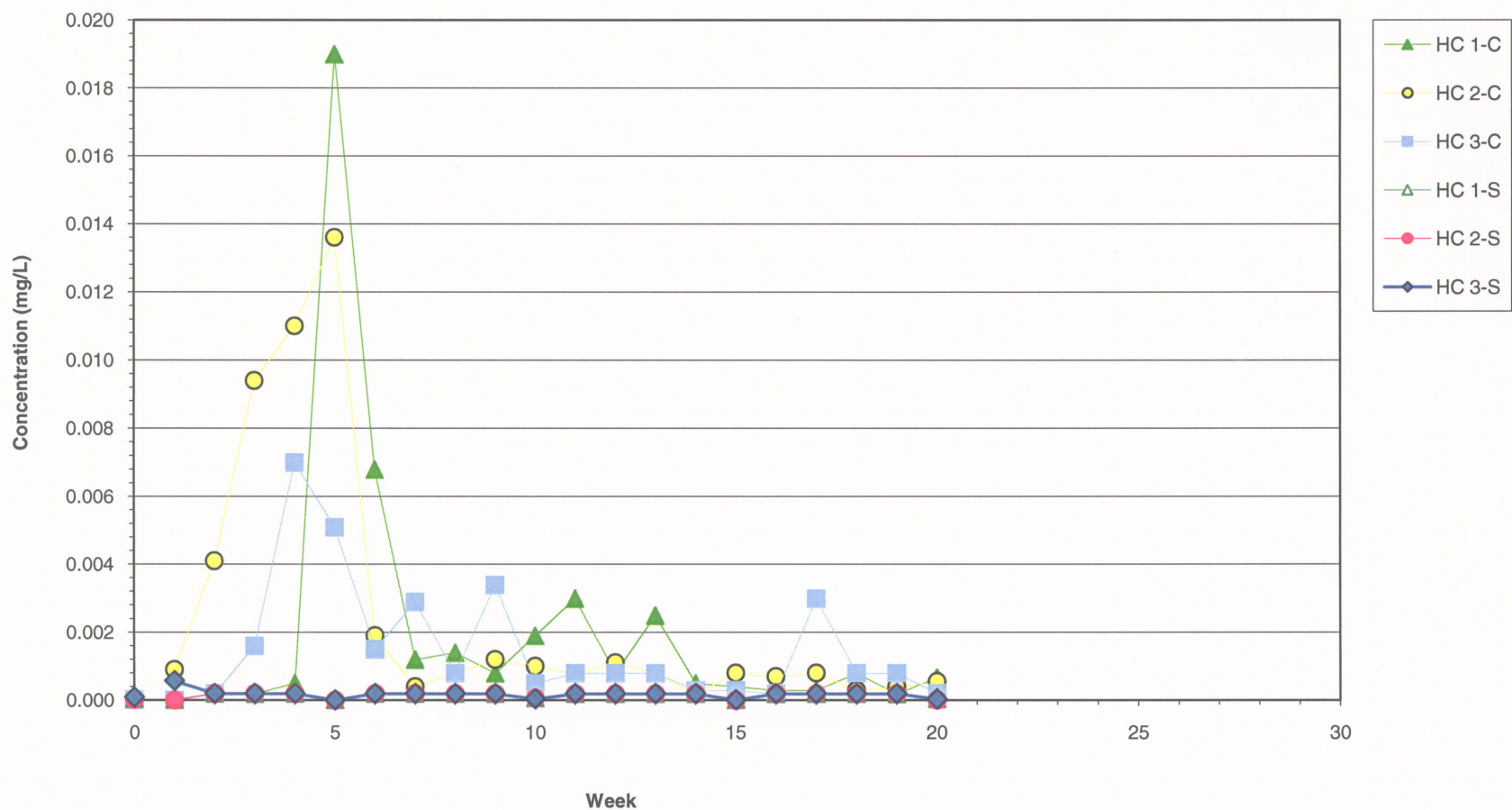
SCALE na

FILE NO. Resolution Kinetic Testing (July 11 08).xls

JOB NO. 073-92548

DWG. NO.

FIGURE NO. 21



Note: Values below detectable limits shown at the detection limit.

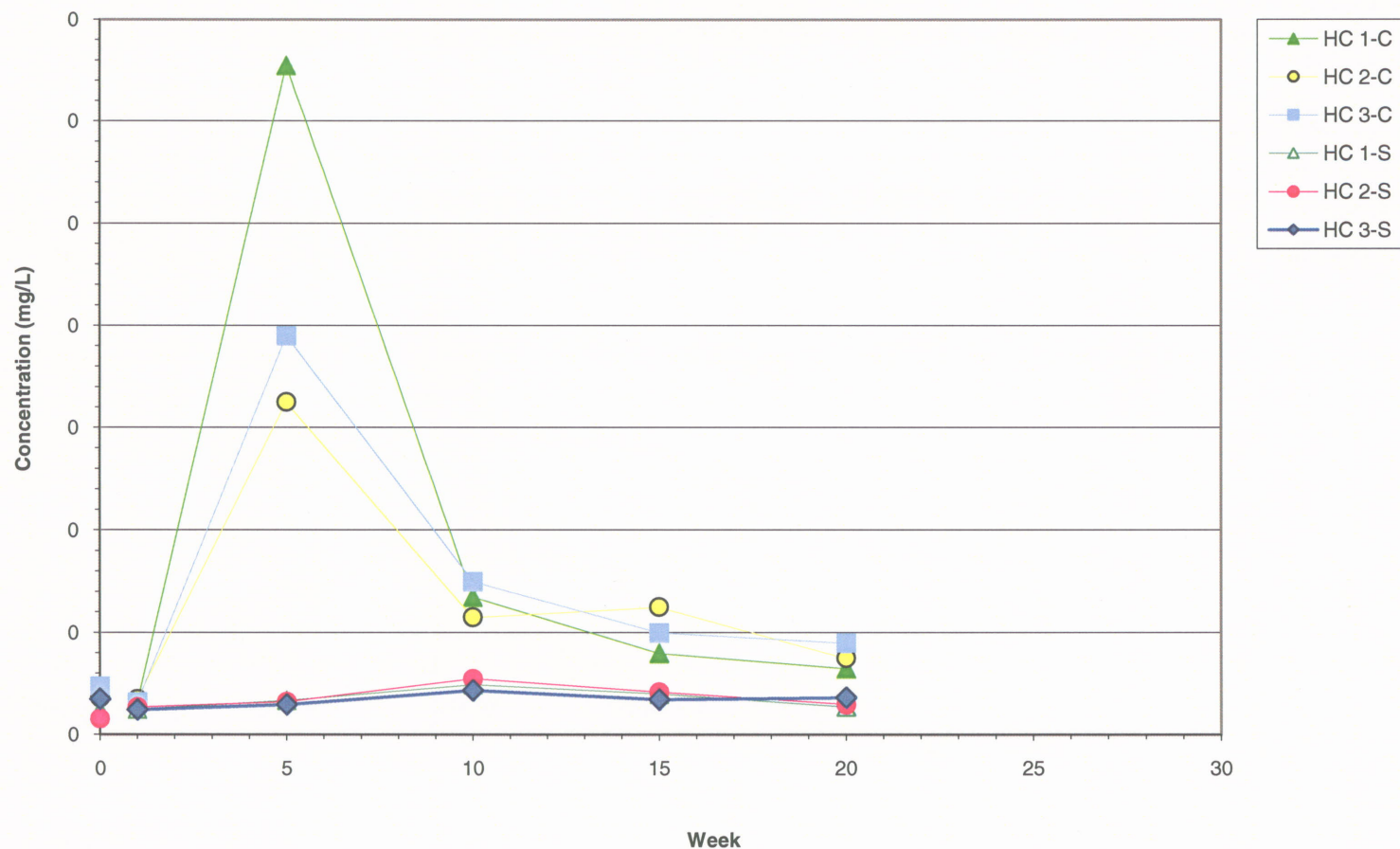


Resolution

TITLE

Kinetic Testing Results - Lead (Pb)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xls	FIGURE NO.	22



Note: Values below detectable limits shown at the detection limit.

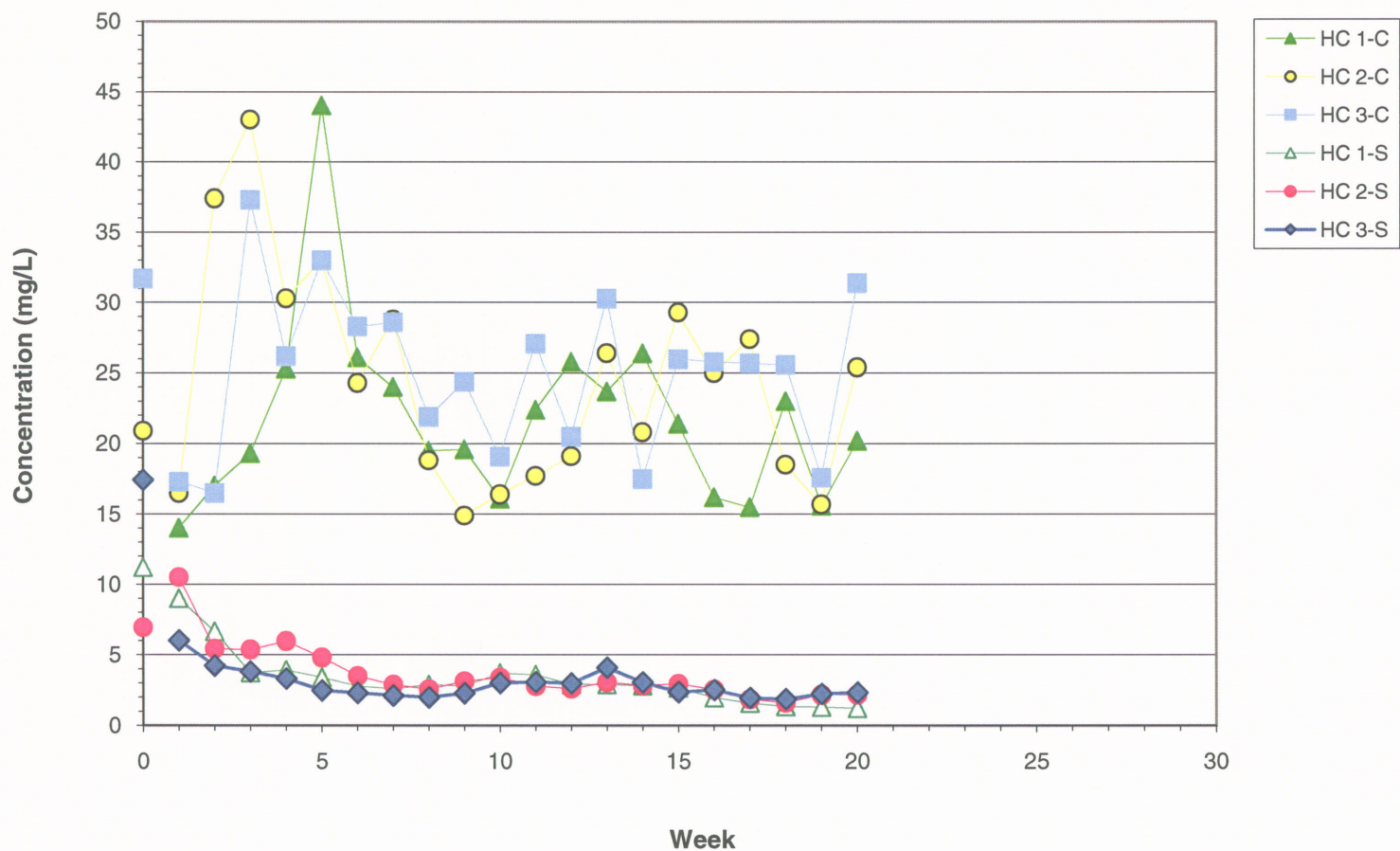


Resolution

TITLE

Kinetic Testing Results - Lithium (Li)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	23



Note: Values below detectable limits shown at the detection limit.

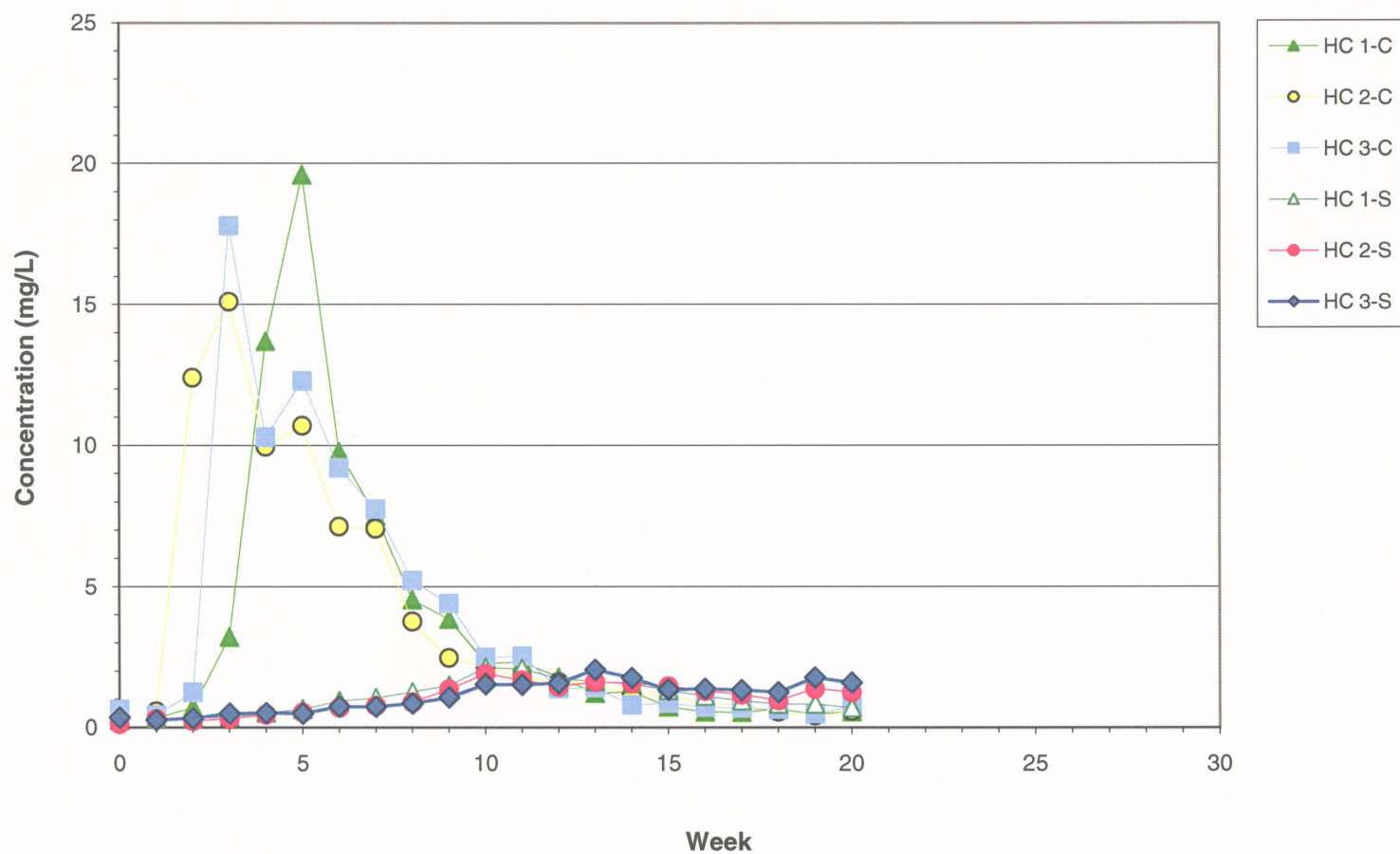


Resolution

TITLE

Kinetic Testing Results - Magnesium (Mg)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	24



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Manganese (Mn)

DRAWN MH

CHECKED RV

REVIEWED RV

DATE Feb-08

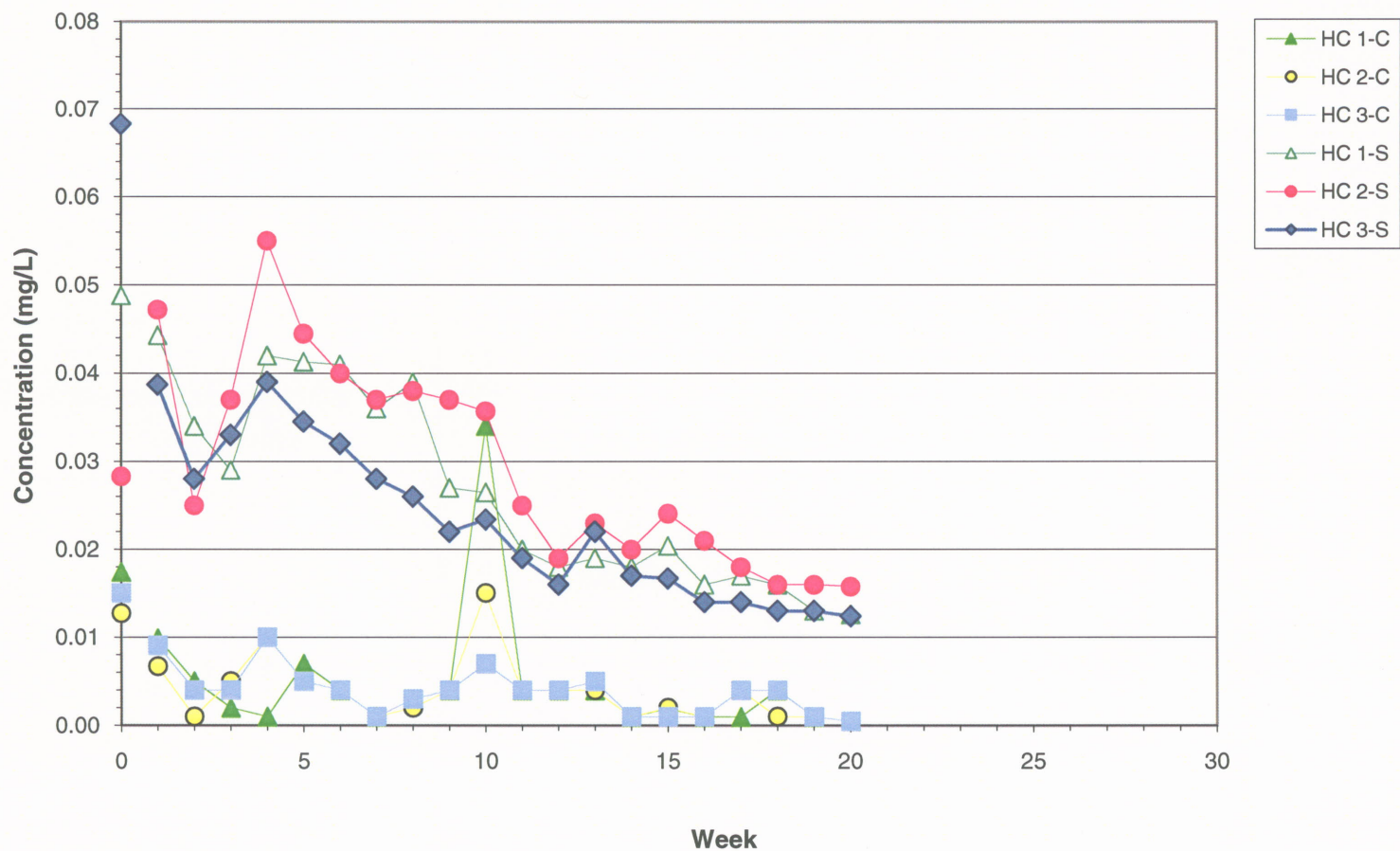
SCALE na

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

JOB NO. 073-92548

DWG. NO.

FIGURE NO. 25



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Molybdenum (Mo)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

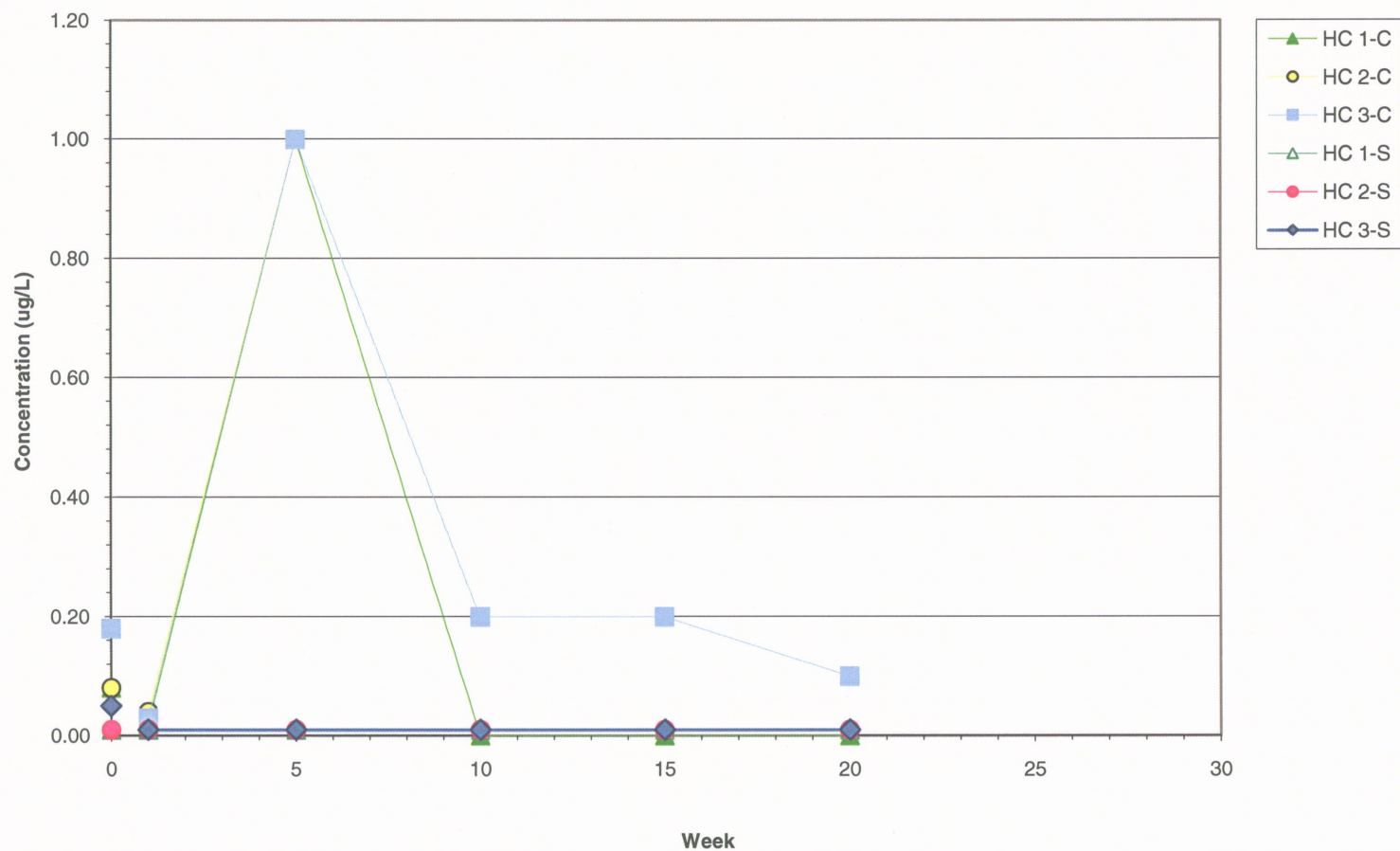
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 27



Note: Values below detectable limits shown at the detection limit.

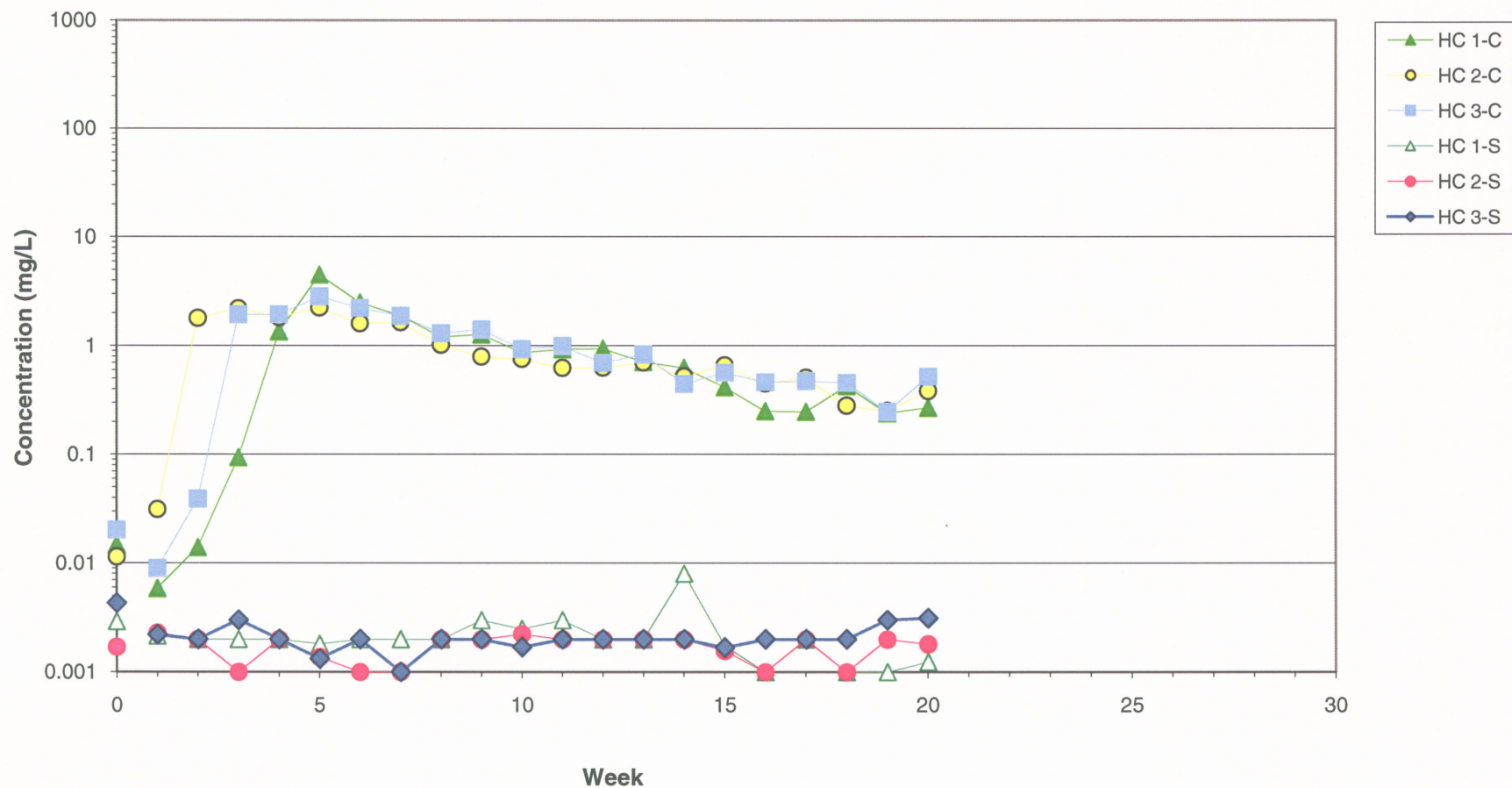


Resolution

TITLE

Kinetic Testing Results - Mercury (Hg)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	26



Note: Values below detectable limits shown at the detection limit.

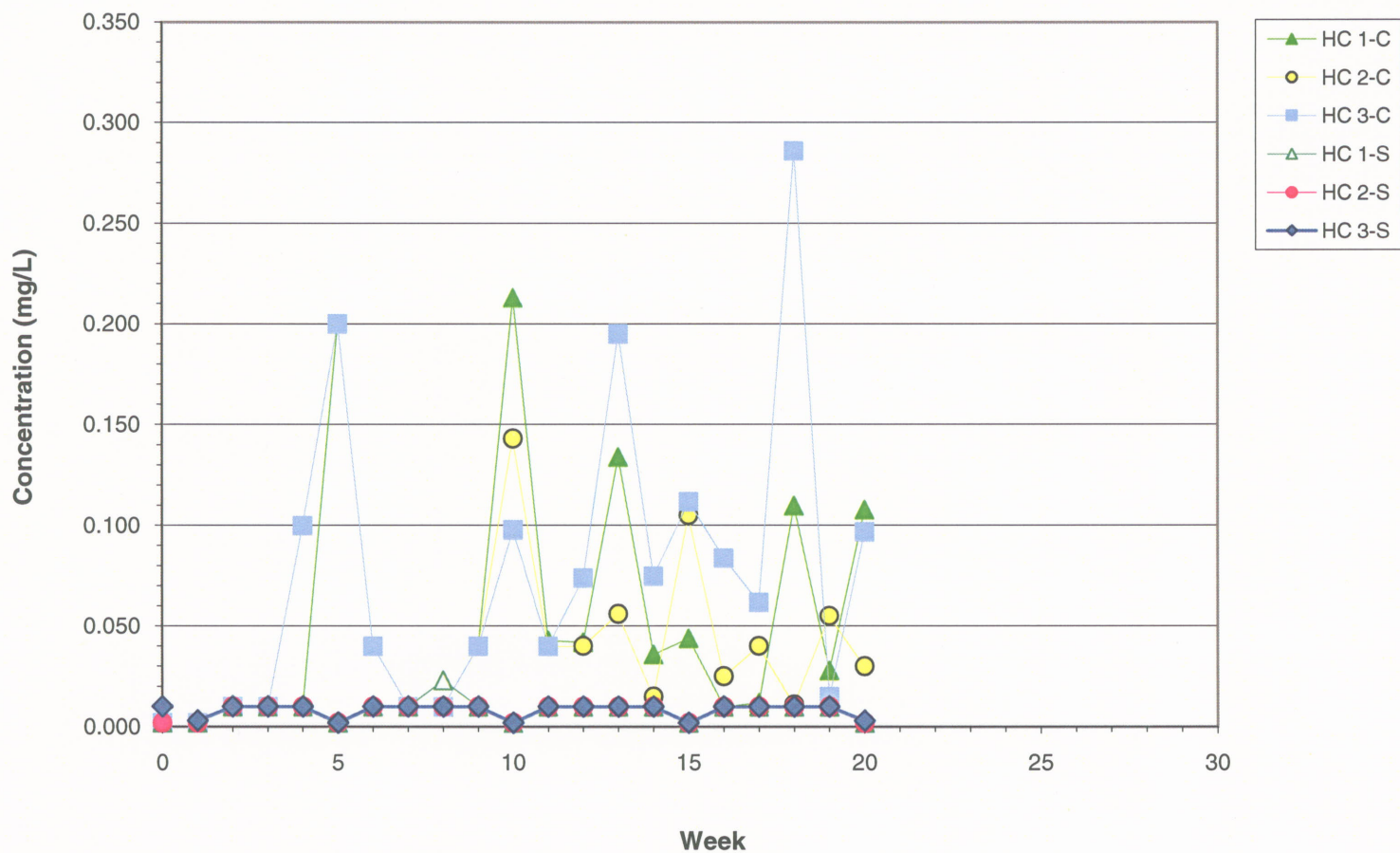


Resolution

TITLE

Kinetic Testing Results - Nickel (Ni)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	28



Note: Values below detectable limits shown at the detection limit.

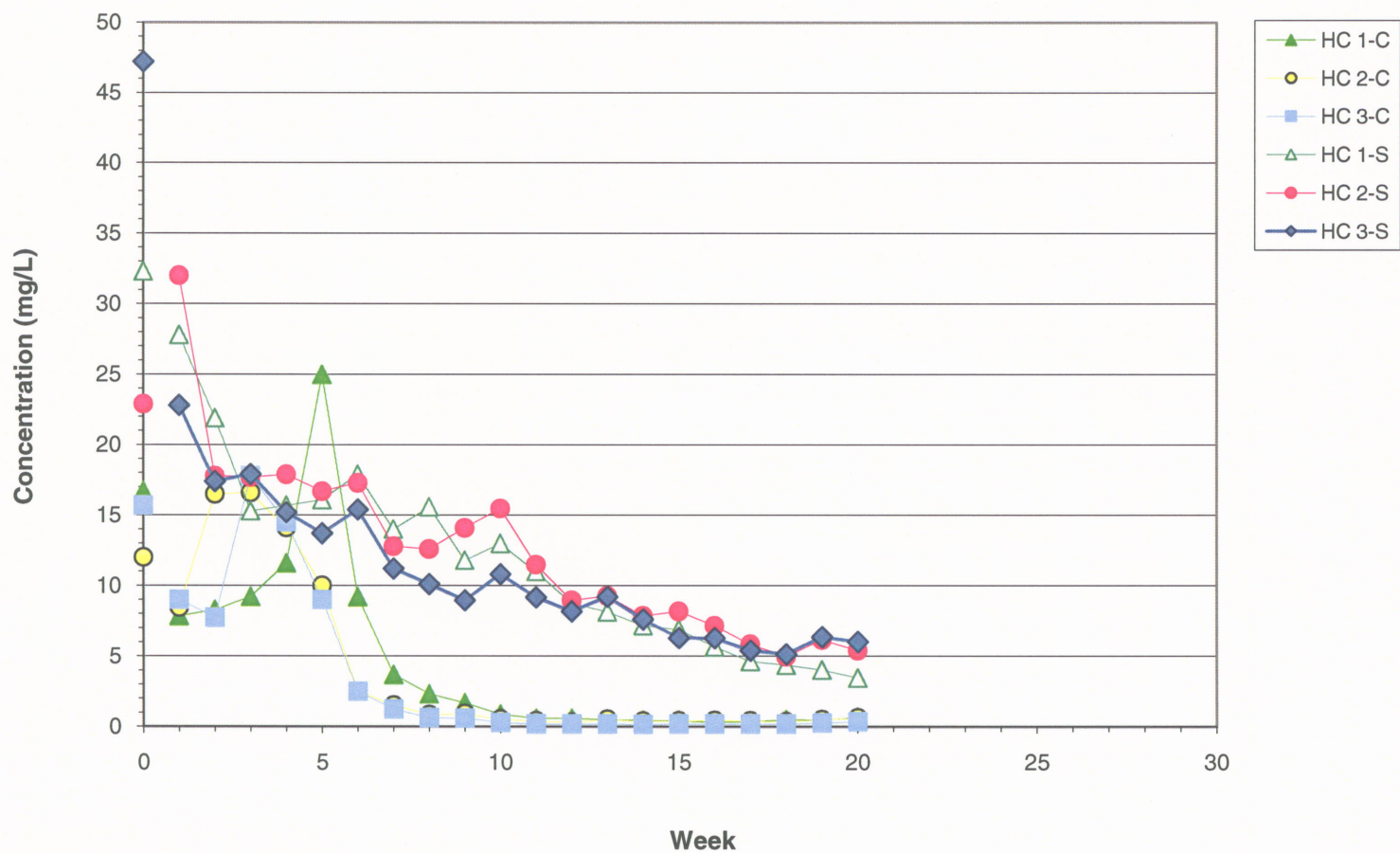


Resolution

TITLE

Kinetic Testing Results - Phosphorus (P)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	29



Note: Values below detectable limits shown at the detection limit.

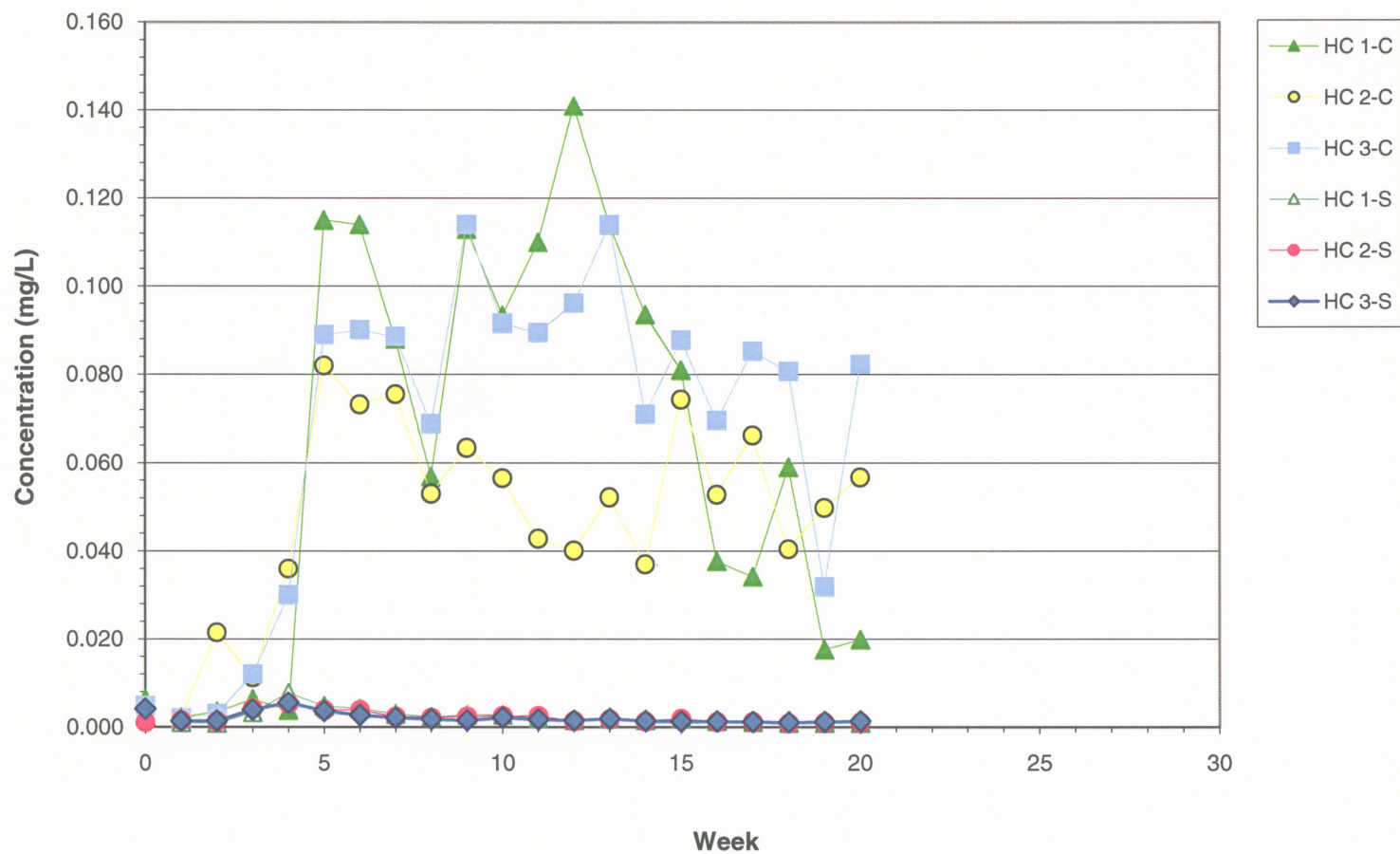


Resolution

TITLE

Kinetic Testing Results - Potassium (K)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	30



Note: Values below detectable limits shown at the detection limit.

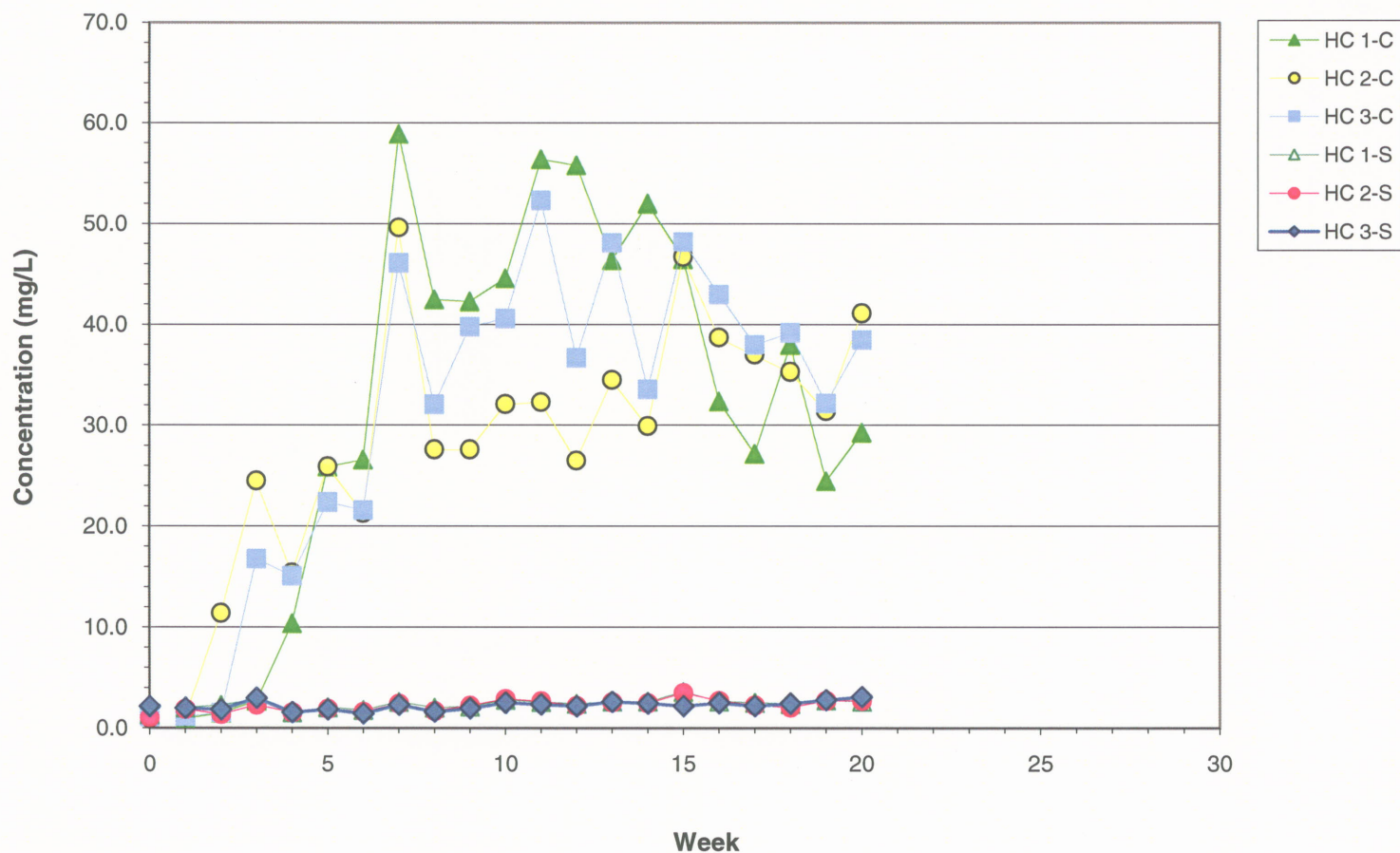


Resolution

TITLE

Kinetic Testing Results - Selenium (Se)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	31



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Silicon (Si)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

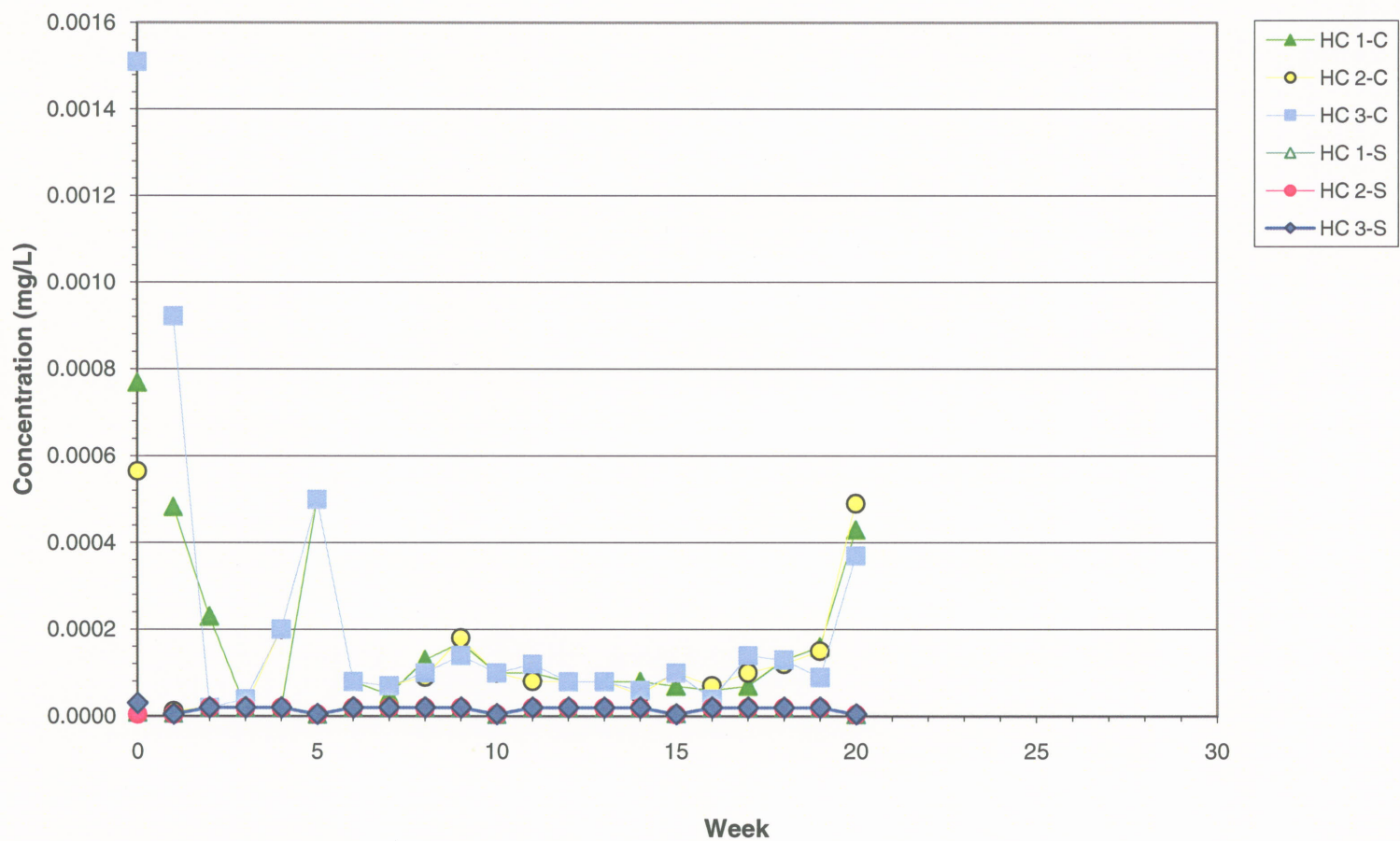
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 32



Note: Values below detectable limits shown at the detection limit.

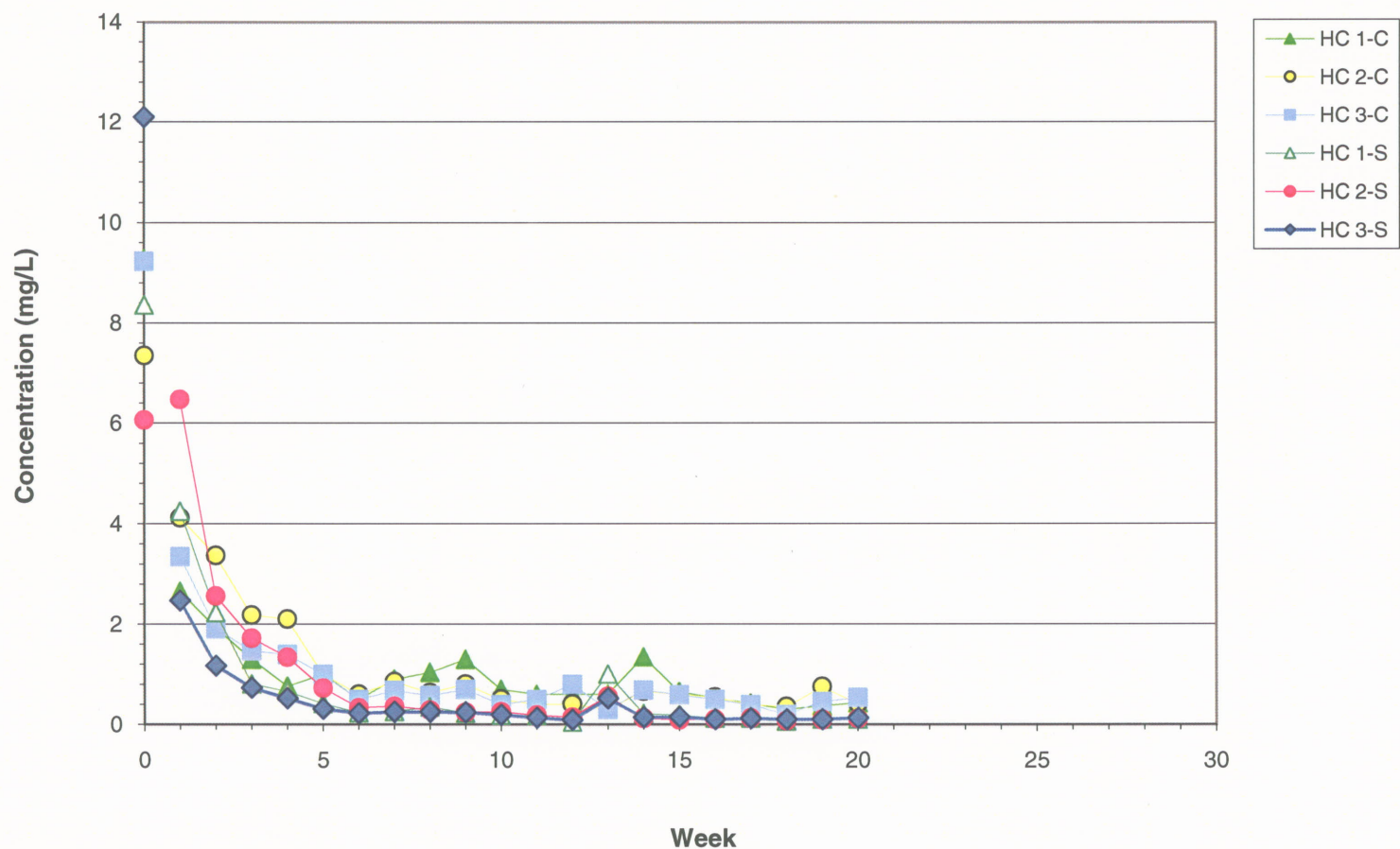


TITLE

Kinetic Testing Results - Silver (Ag)

Resolution

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	33



Note: Values below detectable limits shown at the detection limit.

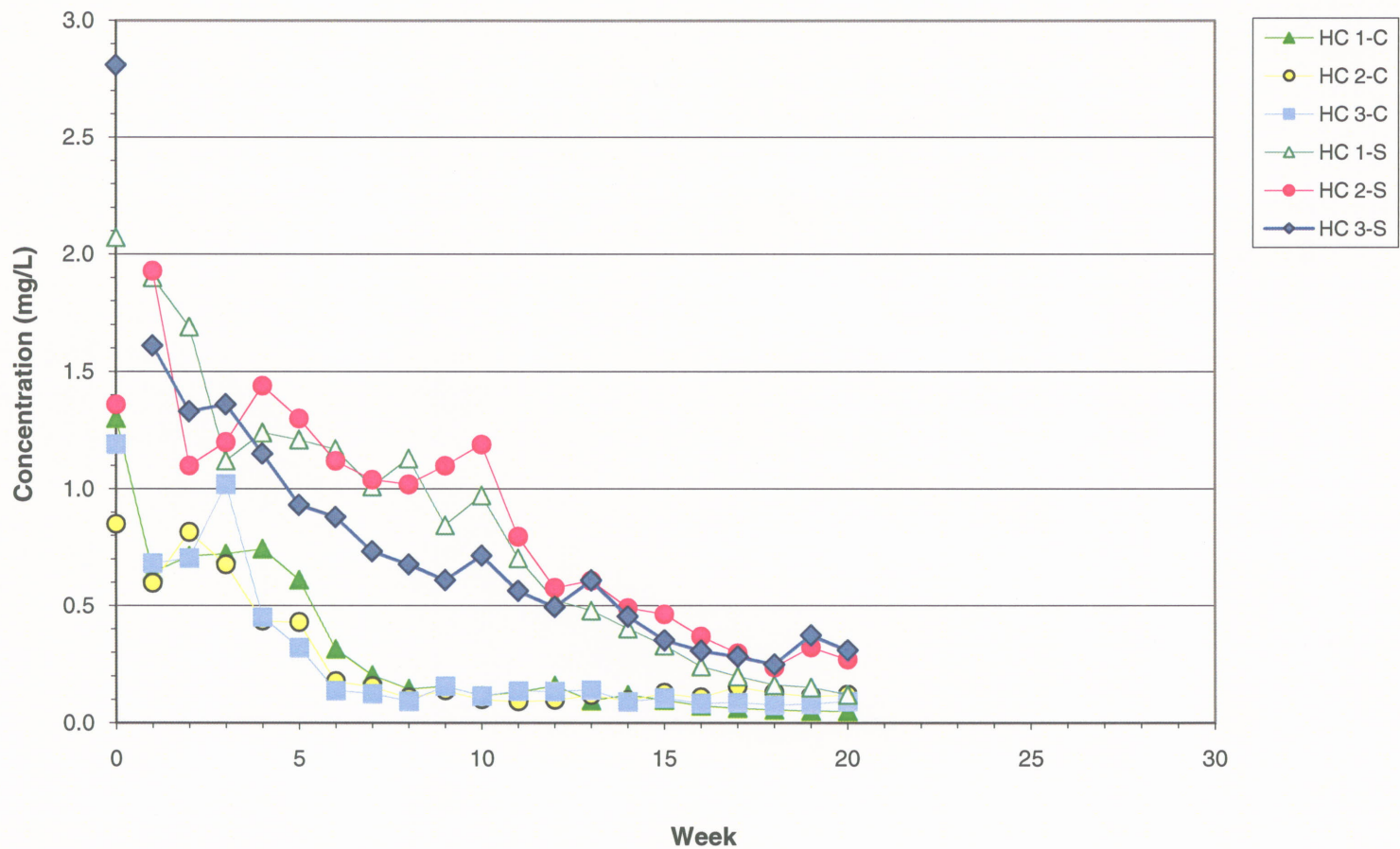


Resolution

TITLE

Kinetic Testing Results - Sodium (Na)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	34



Note: Values below detectable limits shown at the detection limit.

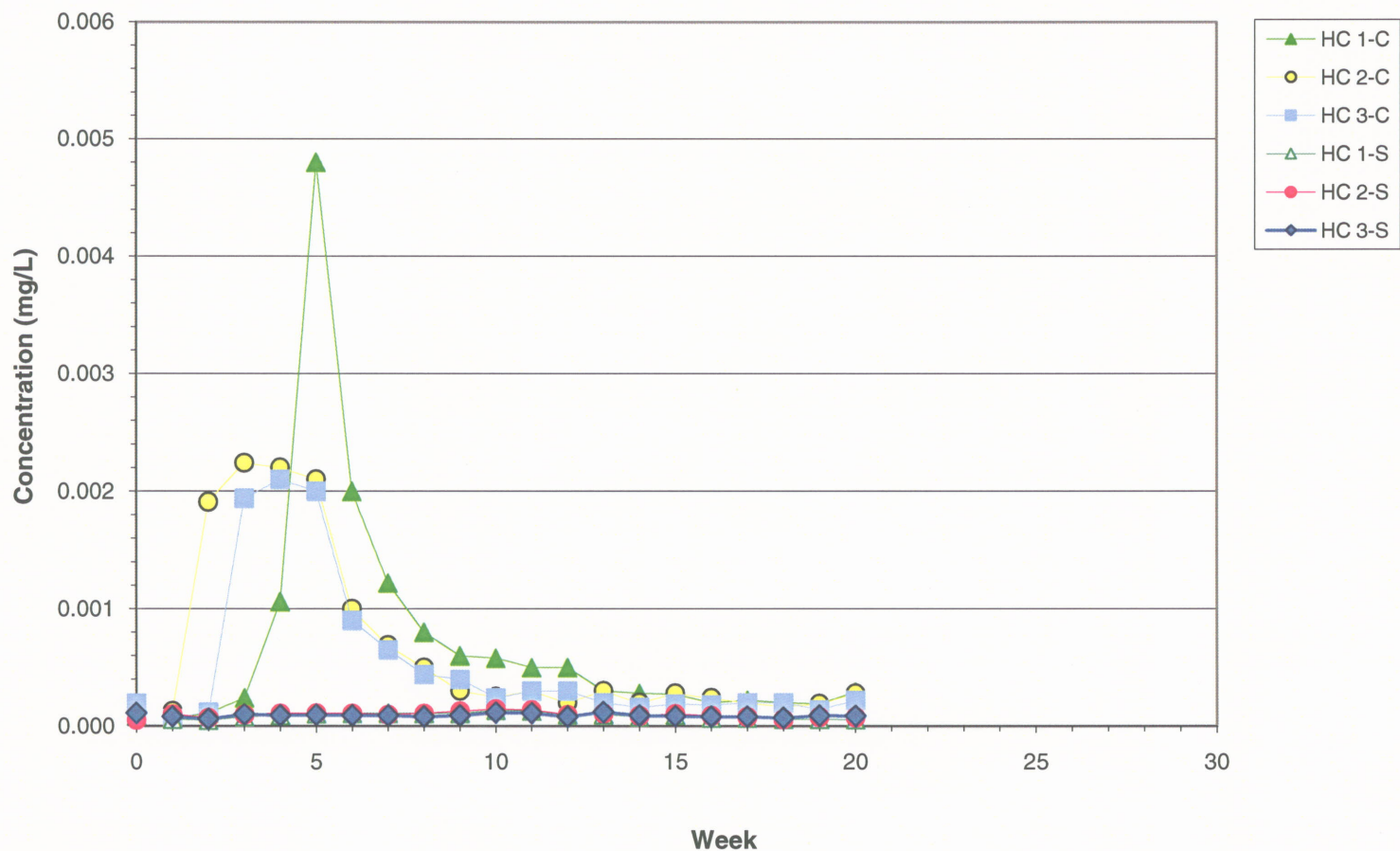


Resolution

TITLE

Kinetic Testing Results - Strontium (Sr)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	35



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Thallium (Tl)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

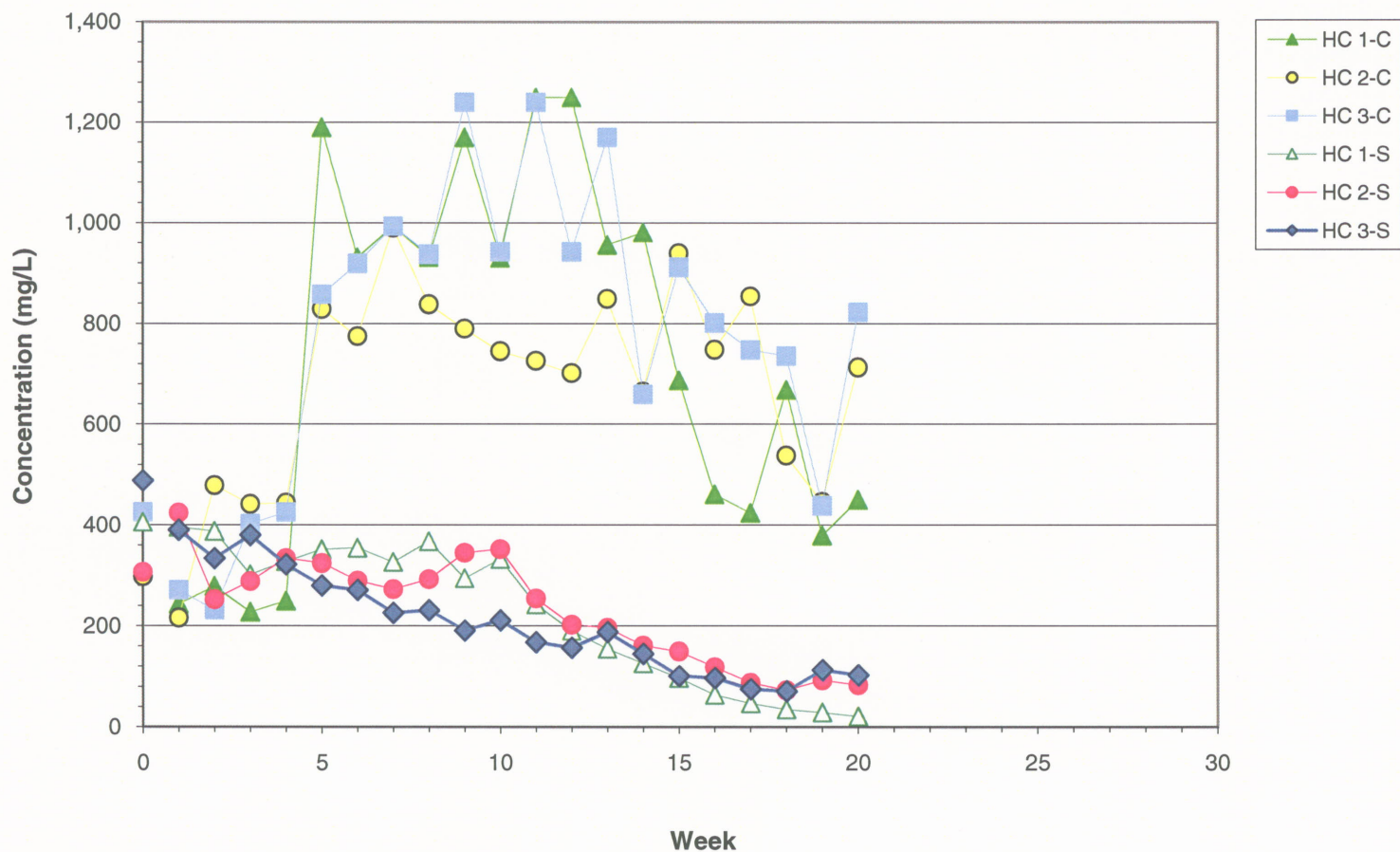
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 37



Note: Values below detectable limits shown at the detection limit.

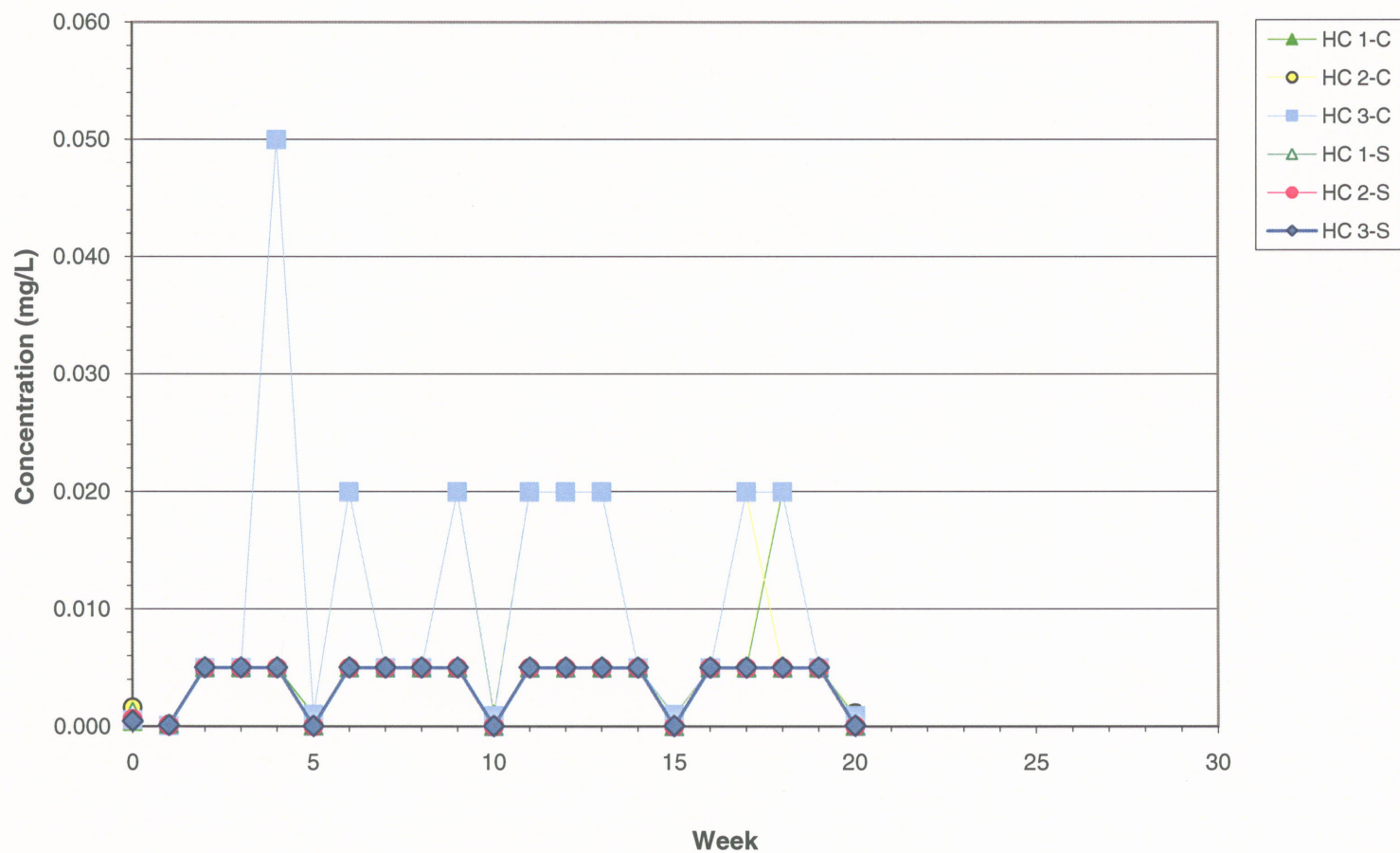


Resolution

TITLE

Kinetic Testing Results - Sulphur (S)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	36



Note: Values below detectable limits shown at the detection limit.

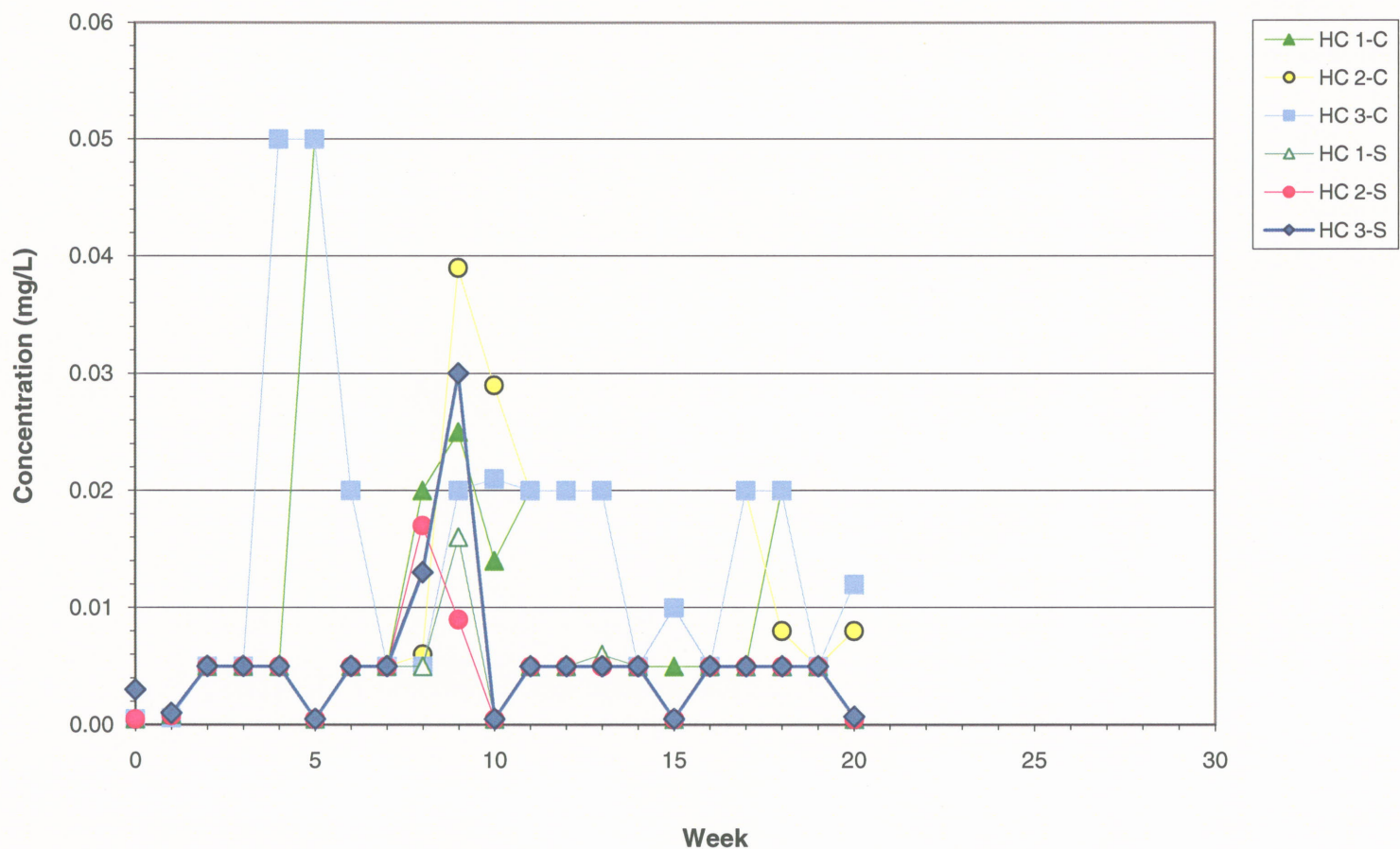


TITLE

Kinetic Testing Results - Tin (Sn)

Resolution

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	38



Note: Values below detectable limits shown at the detection limit.

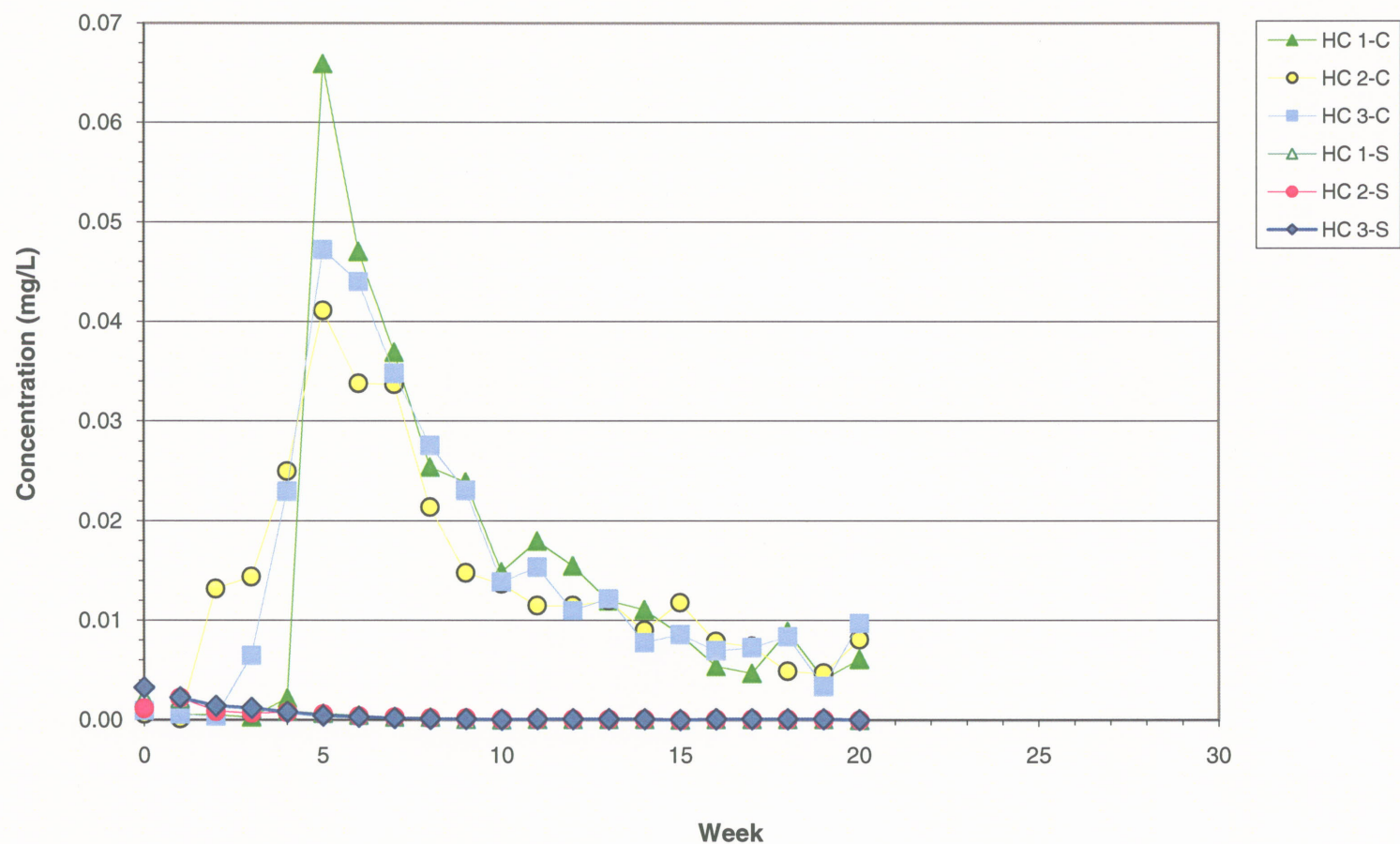


Resolution

TITLE

Kinetic Testing Results - Titanium (Ti)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	39



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Uranium (U)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

SCALE na

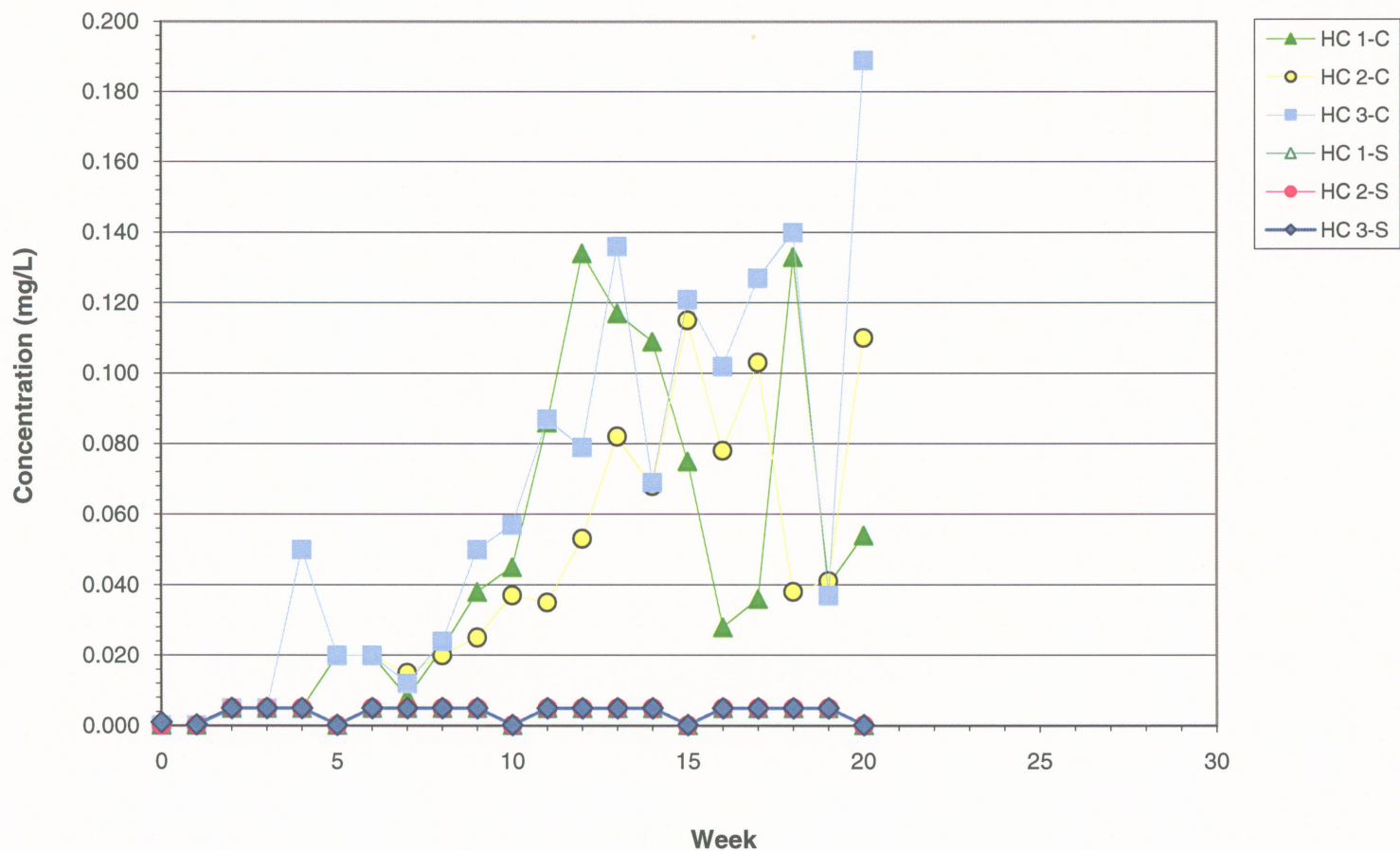
DWG. NO.

REVIEWED RV

FILE NO: Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO.

40



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Vanadium (V)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

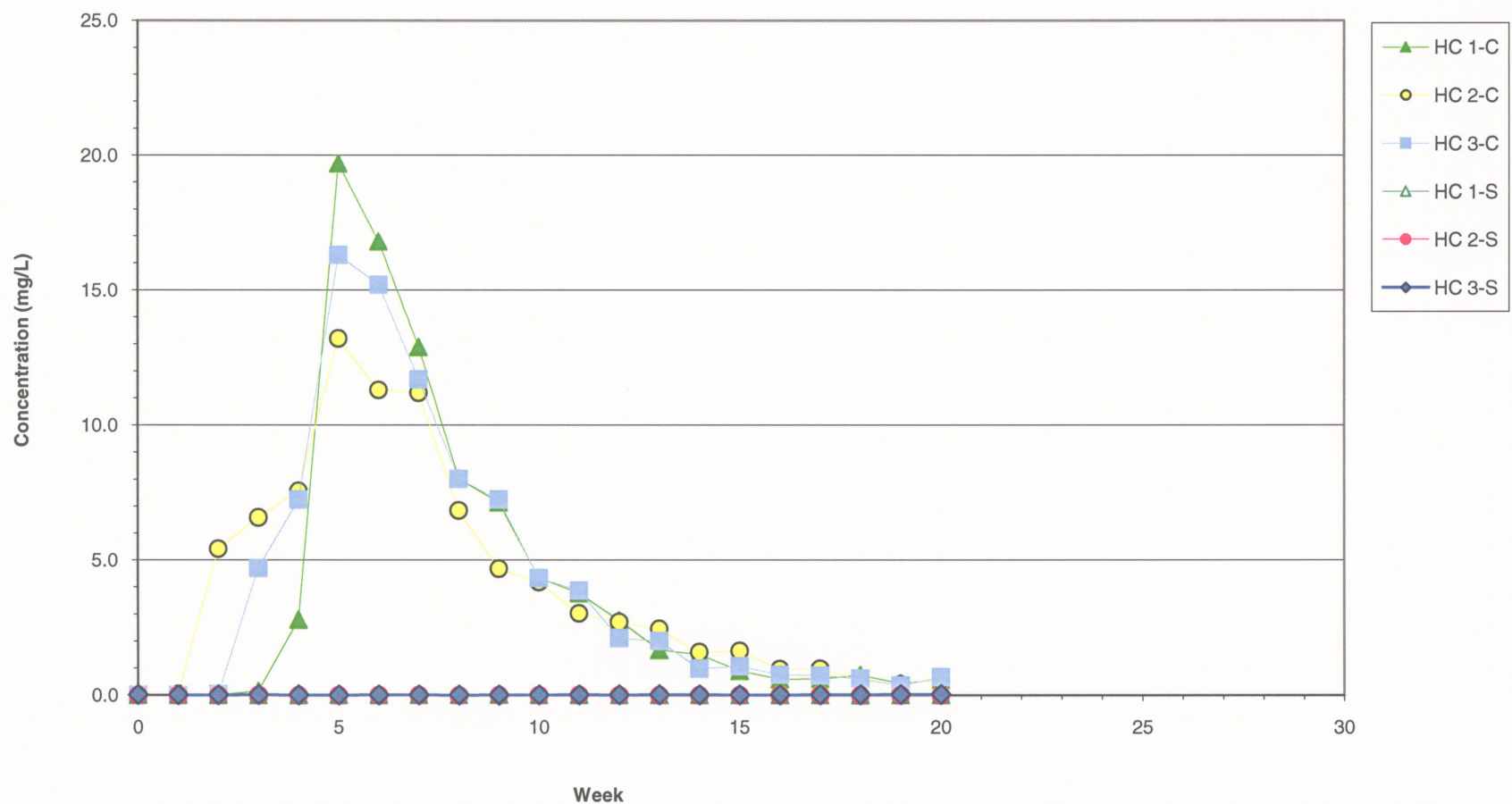
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 41



Note: Values below detectable limits shown at the detection limit.

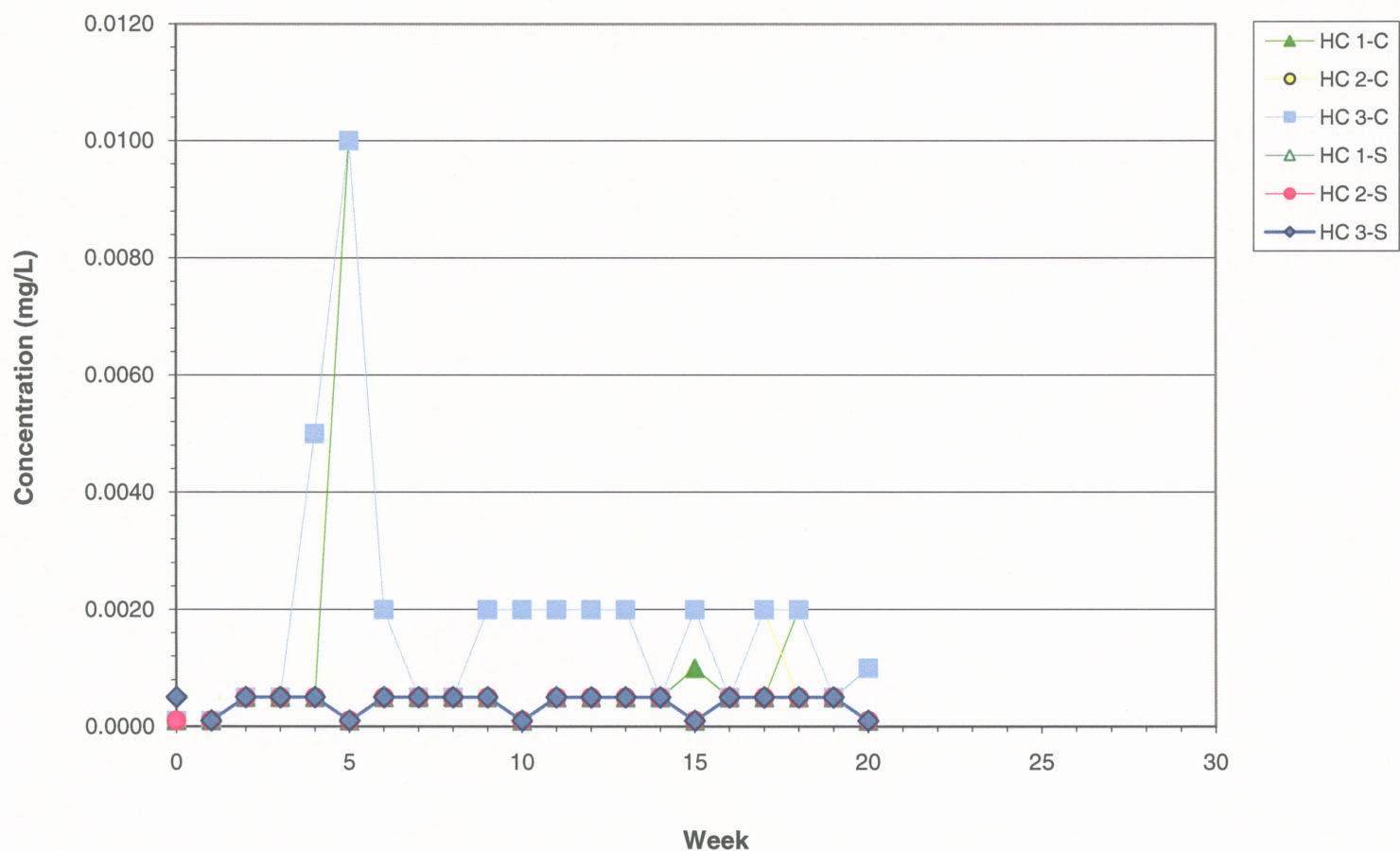


Resolution

TITLE

Kinetic Testing Results - Zinc (Zn)

DRAWN	MH	DATE	Feb-08	JOB NO.	073-92548
CHECKED	RV	SCALE	na	DWG. NO.	
REVIEWED	RV	FILE NO.	Resolution Kinetic Testing (July 11 08).xlsx	FIGURE NO.	42



Note: Values below detectable limits shown at the detection limit.



Resolution

TITLE

Kinetic Testing Results - Zirconium (Zr)

DRAWN MH

DATE Feb-08

JOB NO. 073-92548

CHECKED RV

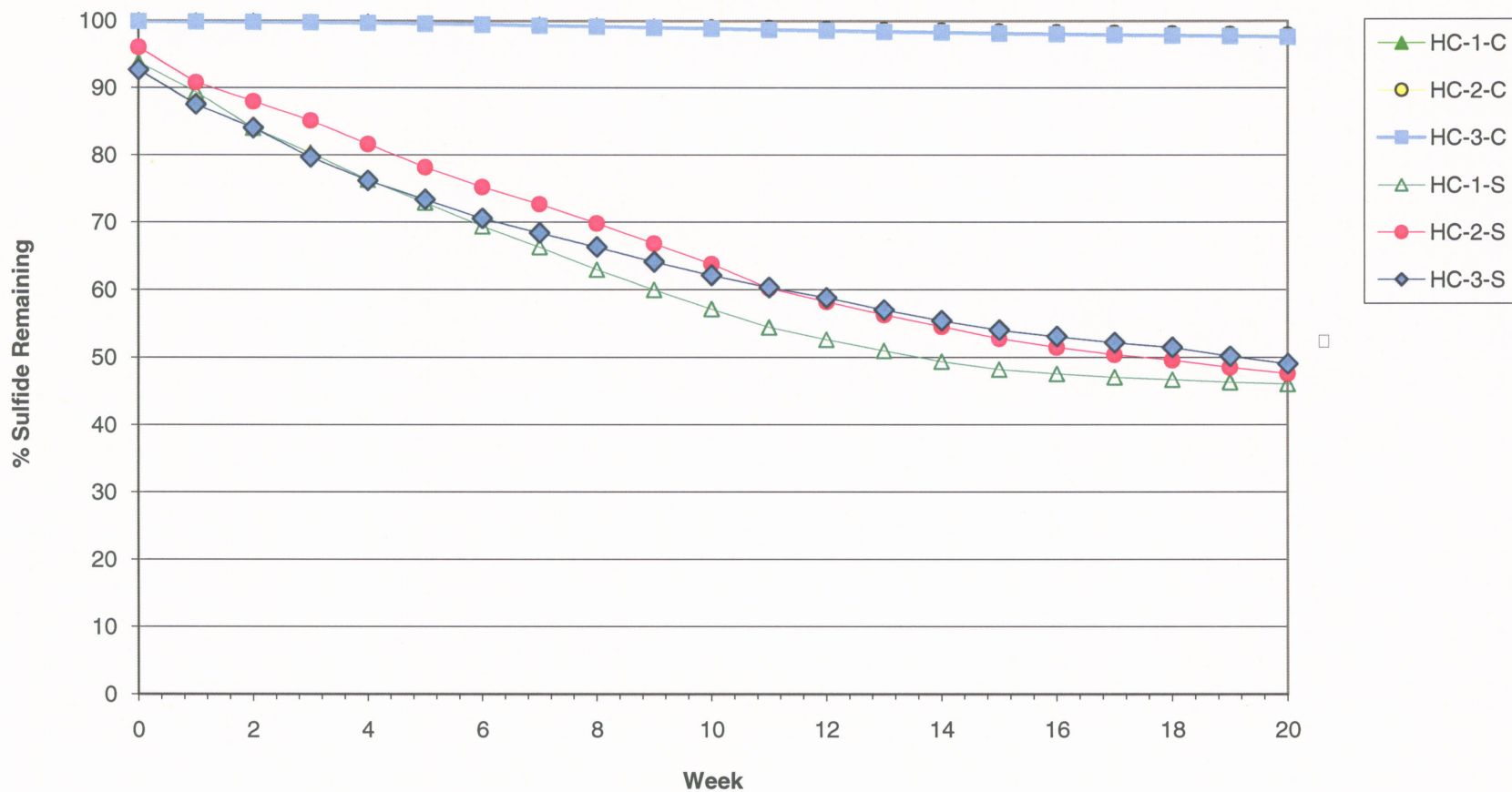
SCALE na

DWG. NO.

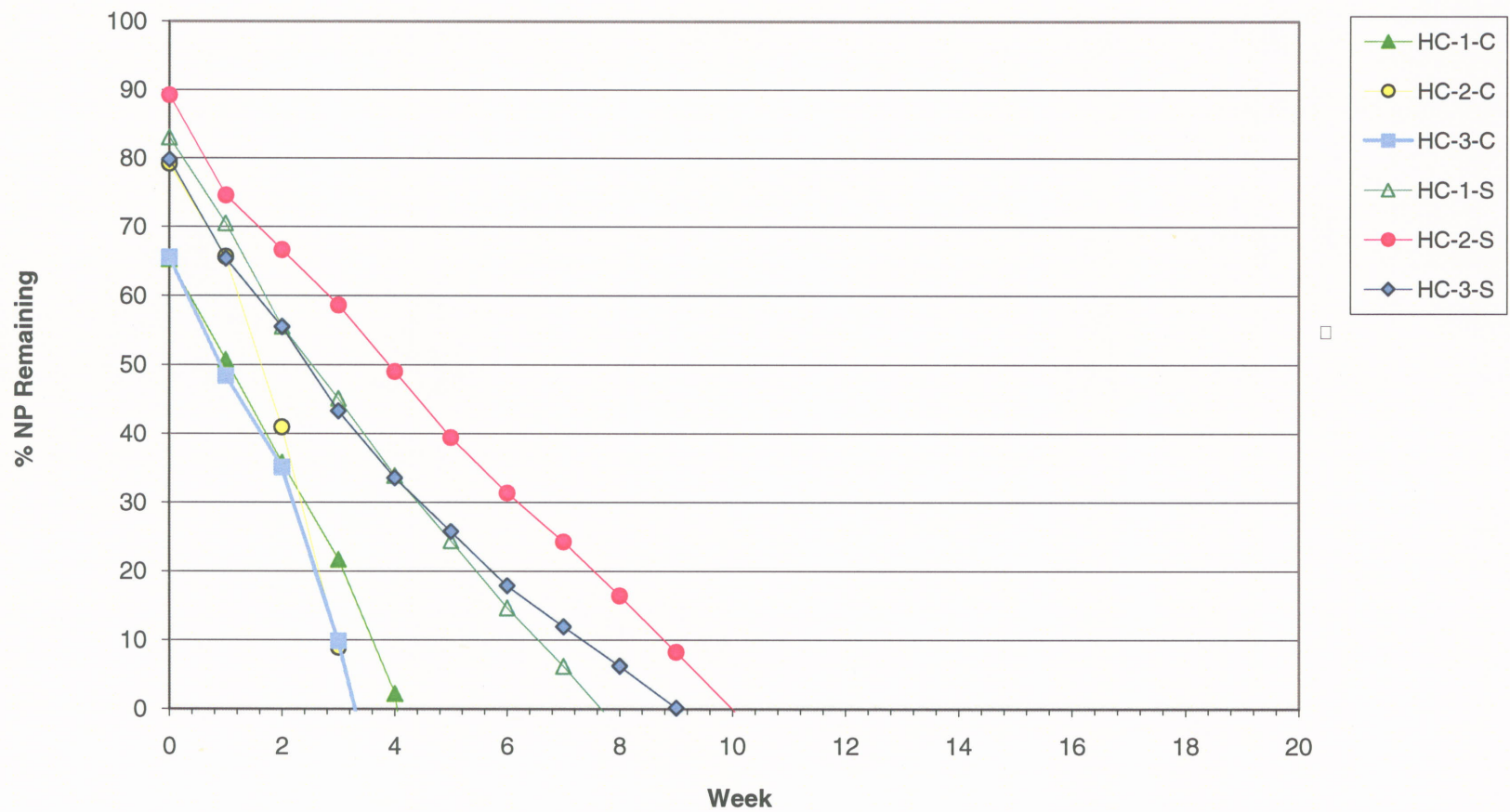
REVIEWED RV

FILE NO. Resolution Kinetic Testing (July 11 08).xlsx

FIGURE NO. 43



Resolution	TITLE		
	Kinetic Testing Results - Sulfide Depletion		
	DRAWN	MH	DATE Jun-08
	CHECKED	RV	SCALE na
	REVIEWED	RV	FILE NO. Depletion calcs (Mar 20 2008)
			FIGURE NO. 44



Resolution

TITLE

Kinetic Testing Results - Neutralization Potential Depletion

DRAWN MH

DATE Jun-08

JOB NO. 073-92548

CHECKED RV

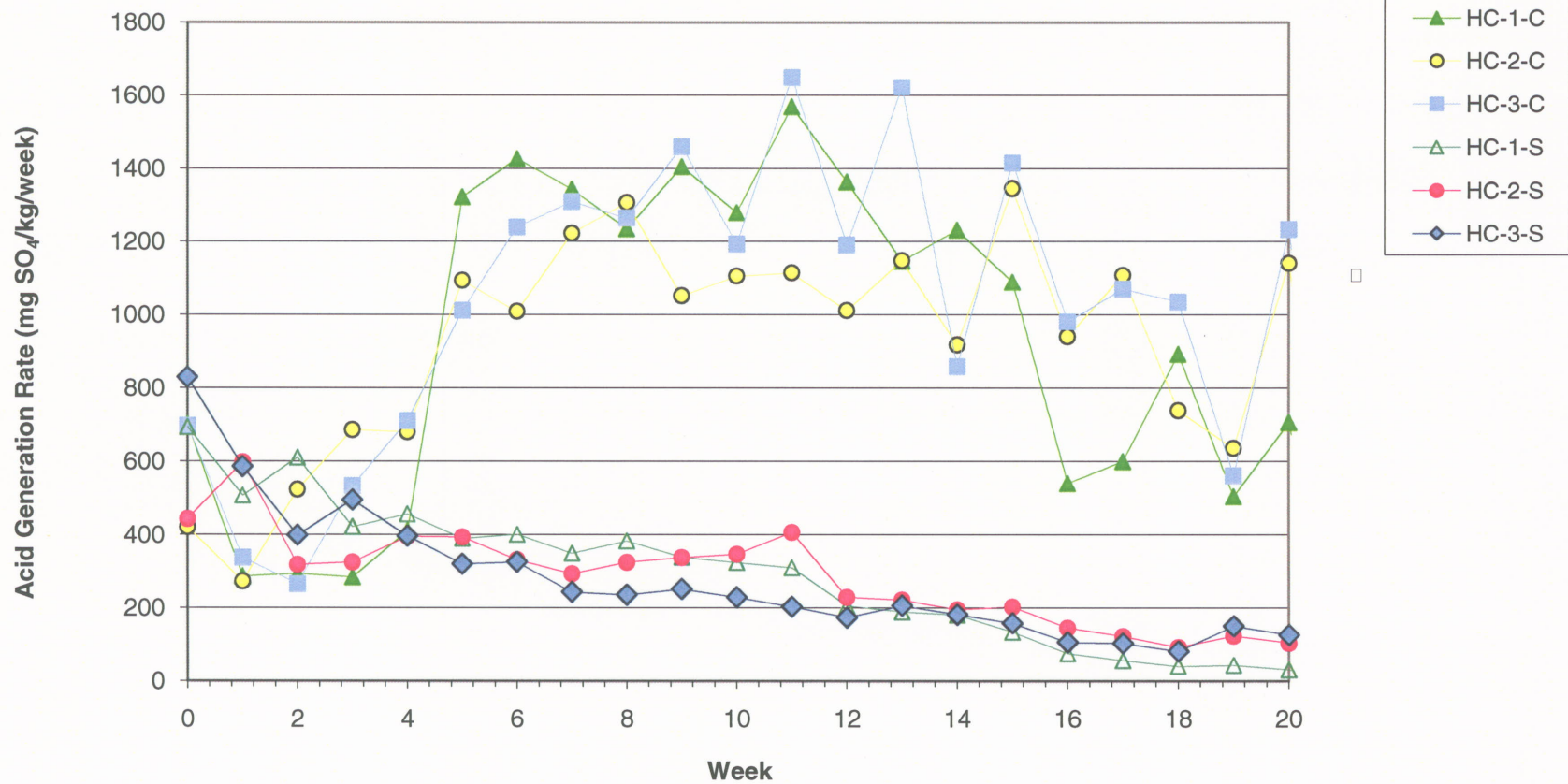
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Depletion calcs (Mar 20 2008)

FIGURE NO. 45



Resolution

TITLE

Kinetic Testing Results - Acid Generation Rates

DRAWN MH

DATE Jun-08

JOB NO. 073-92548

CHECKED RV

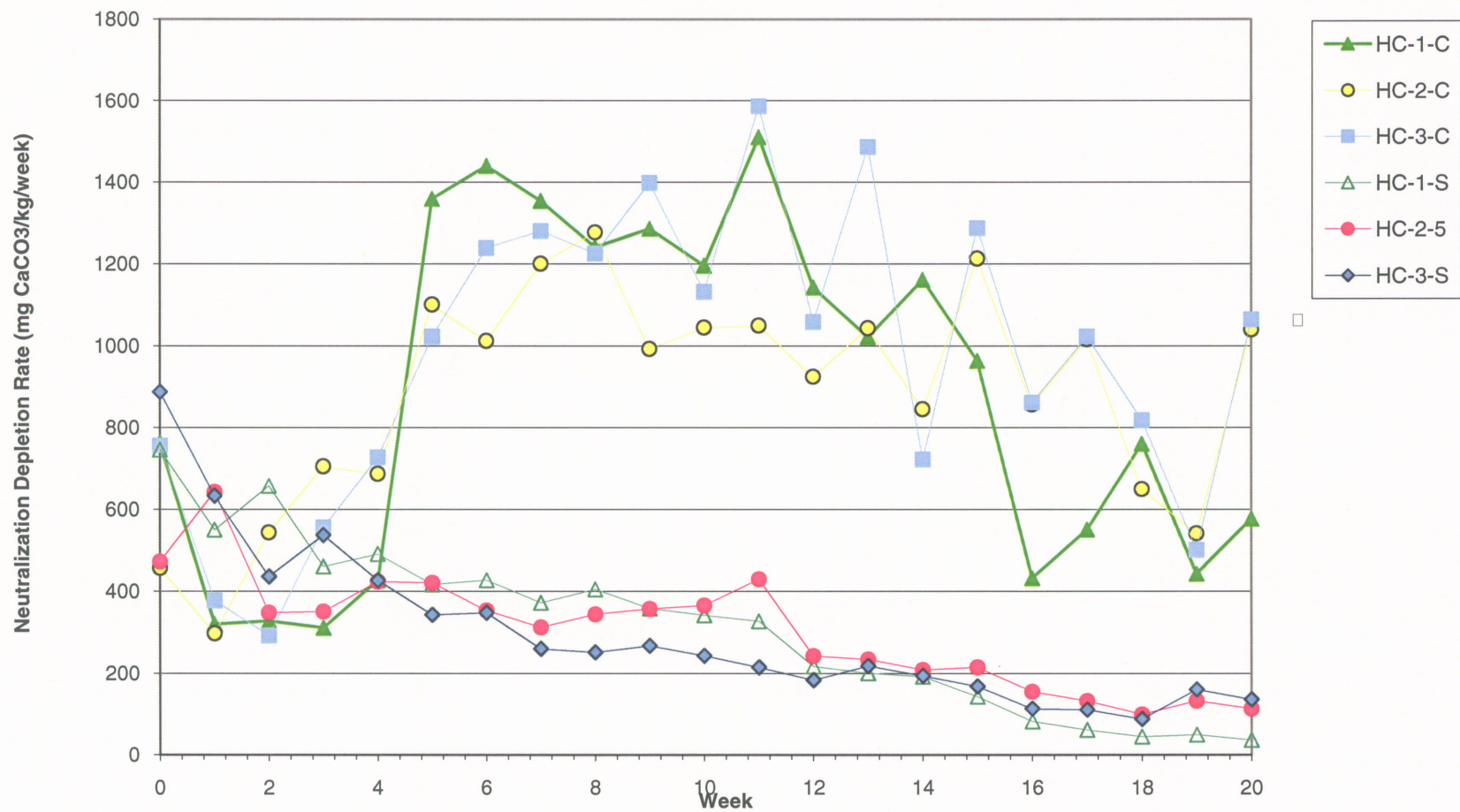
SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Depletion calcs (Mar 20 2008)

FIGURE NO. 46



Resolution

TITLE

Kinetic Testing Results - Neutralization Depletion Rates

DRAWN MH

DATE Jun-08

JOB NO. 073-92548

CHECKED RV

SCALE na

DWG. NO.

REVIEWED RV

FILE NO. Depletion calcs (Mar 20 2008)

FIGURE NO.

47

APPENDIX A

ANALYTICAL RESULTS KINETIC TESTING

Date Reporting Units	Cycle No.	Volume mL		pH	Redox mV	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl mg/L	F mg/L	Hardness CaCO3 mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu
		Input	Output				(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
8-Feb-08	0	500	580	7.52	454	1999	#N/A	7.0	56.7	1208	1700	34.5	1.99	1310	0.0133	0.0003	0.0003	0.013	<0.00001	0.00000	0.03	0.0002	472	<0.0001	0.0056	0.0929
12-Feb-08	1	500	485	7.49	427	1139	#N/A	8.2	46.0	590	980	52.1	1.13	701	0.0535	0.0001	0.0002	0.0113	3E-05	0.00000	0.017	0.0001	258	<0.0001	0.0038	0.434
19-Feb-08	2	500	490	7.33	437	1147	#N/A	7.4	45.5	599	#N/A	#N/A	#N/A	778	0.028	<0.0005	0.0002	0.014	<0.0001	<0.001	0.019	0.0003	284	<0.001	0.0115	0.306
26-Feb-08	3	500	515	7.22	439	1127	#N/A	7.6	30.7	551	#N/A	#N/A	#N/A	674	0.257	<0.0005	0.0001	0.017	0.0003	<0.001	0.024	0.0018	238	<0.001	0.0867	1.05
4-Mar-08	4	500	525	5.13	532	1386	#N/A	214	1.1	781	#N/A	#N/A	#N/A	602	22.9	<0.0005	0.0001	0.022	0.0075	<0.001	0.023	0.0287	200	<0.001	1.15	30.8
11-Mar-08	5	500	370	3.38	515	5100	50	2970	#N/A	3575	6200	<0.5	189	816	148	<0.002	<0.002	0.017	0.067	<0.0005	<0.5	0.148	254	0.129	4.39	1370
18-Mar-08	6	500	470	3.13	546	4480	100	3360	#N/A	3037	#N/A	#N/A	#N/A	557	113	<0.002	0.0025	0.012	0.0427	<0.004	0.04	0.106	180	0.431	2.58	908
25-Mar-08	7	500	455	2.96	540	4770	100	3750	#N/A	2954	#N/A	#N/A	#N/A	600	97.1	<0.0005	0.0019	0.007	0.033	<0.001	0.071	0.0795	201	0.949	2.26	777
1-Apr-08	8	500	465	2.91	530	4130	100	3725	#N/A	2658	#N/A	#N/A	#N/A	564	53.7	<0.0005	0.0029	0.005	0.0205	<0.001	0.025	0.0521	194	0.9	1.42	464
8-Apr-08	9	500	445	3.10	511	4670	400	3575	#N/A	3159	#N/A	#N/A	#N/A	707	63.4	<0.002	0.0025	0.006	0.0198	<0.004	0.519	0.0476	251	1.99	1.63	654
15-Apr-08	10	500	455	3.06	502	4240	300	3600	#N/A	2813	4600	0.5	22	523	40.3	0.0012	0.0033	0.0053	0.0117	0.0001	<1	0.0294	183	1.84	1.16	436
22-Apr-08	11	500	415	3.04	570	5420	300	3000	#N/A	3782	#N/A	#N/A	#N/A	681	41.6	<0.002	0.0026	0.004	0.0114	<0.004	<0.2	0.0288	236	2.4	1.25	441
29-Apr-08	12	500	370	2.69	575	5980	750	3775	#N/A	3686	#N/A	#N/A	#N/A	764	43.9	<0.002	0.0021	<0.004	0.0098	<0.004	<0.2	0.0209	263	2.81	1.34	404
6-May-08	13	500	410	2.63	579	4920	425	3600	#N/A	2800	#N/A	#N/A	#N/A	571	35.6	<0.002	0.0026	<0.004	0.0055	<0.004	<0.2	0.012	189	2.24	0.991	272
13-May-08	14	500	425	2.84	587	4660	288	2300	#N/A	2900	#N/A	#N/A	#N/A	680	32.1	<0.0005	0.0011	0.006	0.0056	<0.001	0.075	0.012	229	1.53	0.867	202
20-May-08	15	500	490	2.68	545	3350	350	2275	#N/A	2225	3600	<0.5	7.76	502	23.7	0.0009	0.0022	0.0041	0.0034	<0.00001	<0.5	0.0074	166	1.1	0.554	129
27-May-08	16	500	475	2.91	550	3050	275	1175	#N/A	1138	#N/A	#N/A	#N/A	375	15.5	<0.0005	0.0008	0.004	0.002	<0.001	<0.05	0.0049	123	0.518	0.305	68.2
3-Jun-08	17	500	490	2.99	520	2520	150	1400	#N/A	1224	#N/A	#N/A	#N/A	320	14	<0.0005	0.0014	0.004	0.0018	<0.001	<0.05	0.0056	103	0.483	0.297	68.9
10-Jun-08	18	500	445	2.53	517	3480	375	1925	#N/A	1983	#N/A	#N/A	#N/A	365	28.6	<0.002	0.0019	<0.004	0.0024	<0.004	<0.2	0.0075	108	1.12	0.563	107
17-Jun-08	19	500	470	2.90	595	2270	175	1000	#N/A	1073	#N/A	#N/A	#N/A	289	14.2	<0.0005	0.0009	0.003	0.0014	<0.001	<0.05	0.0036	89.9	0.487	0.29	54.9
24-Jun-08	20	500	485	2.72	656	2720	325	1000	#N/A	1455	2400	<0.5	3.29	320	17.1	0.0002	0.0016	0.0029	0.0019	<0.00001	<0.5	0.0054	94.9	0.595	0.319	67.8
1-Jul-08	21	500	455	2.54	533	3020	300	1400	#N/A																	

Leachate Chemistry for HC-1-C

Date Reporting Units	Cycle No.	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	0.005	3E-05	0.0094	31.7	0.53	0.08	0.0174	0.0147	<0.002	16.7	0.0063	1.65	0.0008	9.27	1.3	427	0.0002	0.0004	<0.0005	0.001	<0.0002	0.005	<0.0001	27.38	26.99	-0.39	-0.7%
12-Feb-08	1	0.002	9E-06	0.0064	14	0.347	0.02	0.0099	0.0059	<0.002	7.85	0.0022	0.971	0.0005	2.65	0.643	244	6E-05	7E-05	0.0008	0.0006	<0.0002	0.0053	<0.0001	14.74	14.34	-0.40	-1.4%
19-Feb-08	2	0.005	<0.0002	#N/A	17	0.718	#N/A	0.005	0.014	<0.01	8.28	0.0035	1.5	0.0002	1.92	0.713	279	0.0001	<0.005	<0.005	0.0005	<0.005	0.013	<0.0005	13.39	15.87	2.48	8.5%
26-Feb-08	3	<0.005	<0.0002	#N/A	19.3	3.22	#N/A	0.002	0.094	<0.01	9.22	0.0063	2.72	<0.00002	1.3	0.723	228	0.0002	<0.005	<0.005	0.0003	<0.005	0.154	<0.0005	12.09	13.76	1.66	6.4%
4-Mar-08	4	2.94	0.0005	#N/A	25.3	13.7	#N/A	<0.001	1.35	<0.01	11.6	0.0038	10.4	<0.00002	0.76	0.744	250	0.0011	<0.005	<0.005	0.0022	<0.005	2.79	<0.0005	16.29	16.19	-0.10	-0.3%
11-Mar-08	5	111	0.019	0.131	44	19.6	<1	0.007	4.48	<0.2	25	0.115	25.9	<0.0005	<1	0.611	1190	0.0048	<0.001	<0.05	0.0659	<0.02	19.7	<0.01	84.43	83.68	-0.75	-0.4%
18-Mar-08	6	222	0.0068	#N/A	26.1	9.78	#N/A	<0.004	2.49	<0.04	9.2	0.114	26.6	<0.00002	0.5	0.316	931	0.002	<0.02	<0.02	0.047	<0.02	16.8	<0.002	63.27	65.79	2.52	2.0%
25-Mar-08	7	382	0.0012	#N/A	24	7.52	#N/A	<0.001	1.89	<0.01	3.7	0.088	58.9	5E-05	0.9	0.204	993	0.0012	<0.005	<0.005	0.0369	0.008	12.9	<0.0005	61.54	69.45	7.91	6.0%
1-Apr-08	8	535	0.0014	#N/A	19.5	4.55	#N/A	0.003	1.21	<0.01	2.33	0.0569	42.5	0.0001	1.04	0.146	932	0.0008	<0.005	0.02	0.0254	0.022	8.03	<0.0005	55.38	62.20	6.83	5.8%
8-Apr-08	9	629	<0.0008	#N/A	19.6	3.85	#N/A	<0.004	1.27	<0.04	1.7	0.113	42.3	0.0002	1.3	0.157	1170	0.0006	<0.02	0.025	0.0239	0.038	7.15	<0.002	65.81	76.69	10.87	7.6%
15-Apr-08	10	655	0.0019	0.027	16.1	2.29	<0.2	0.034	0.868	0.213	0.9	0.0934	44.6	<0.0001	0.7	0.117	931	0.0006	0.001	0.014	0.0149	0.045	4.35	<0.002	58.60	64.93	6.33	5.1%
22-Apr-08	11	958	0.003	#N/A	22.4	2.33	#N/A	<0.004	0.93	0.043	0.6	0.11	56.4	0.0001	0.6	0.132	1250	0.0005	<0.02	<0.02	0.018	0.086	3.79	<0.002	78.79	84.71	5.91	3.6%
29-Apr-08	12	1080	0.0008	#N/A	25.8	1.8	#N/A	<0.004	0.942	0.042	0.6	0.141	55.8	<0.00002	0.6	0.16	1250	0.0005	<0.02	<0.02	0.0155	0.134	2.78	<0.002	76.79	93.08	16.29	9.6%
6-May-08	13	865	0.0025	#N/A	23.7	1.23	#N/A	0.004	0.712	0.134	0.5	0.114	46.4	<0.00002	0.6	0.096	956	0.0003	<0.02	<0.02	0.012	0.117	1.68	<0.002	58.33	72.84	14.51	11.1%
13-May-08	14	996	0.0005	#N/A	26.4	1.28	#N/A	<0.001	0.63	0.036	0.46	0.0936	52	8E-05	1.35	0.121	981	0.0003	<0.005	0.005	0.0111	0.109	1.51	<0.0005	60.42	78.60	18.19	13.1%
20-May-08	15	629	0.0004	0.016	21.4	0.748	<0.1	0.0019	0.417	0.044	0.42	0.081	46.5	7E-05	0.65	0.0983	688	0.0003	0.0009	<0.005	0.0086	0.075	0.907	<0.001	46.35	52.70	6.35	6.4%
27-May-08	16	338	0.0003	#N/A	16.2	0.567	#N/A	<0.001	0.251	<0.01	0.33	0.0377	32.4	6E-05	0.53	0.074	462	0.0002	<0.005	<0.005	0.0054	0.028	0.599	<0.0005	23.71	30.78	7.07	13.0%
3-Jun-08	17	365	0.0003	#N/A	15.5	0.547	#N/A	<0.001	0.248	0.012	0.37	0.0342	27.2	7E-05	0.42	0.064	425	0.0002	<0.005	<0.005	0.0047	0.036	0.61	<0.0005	25.50	30.83	5.33	9.5%
10-Jun-08	18	616	<0.0008	#N/A	23	0.673	#N/A	<0.004	0.427	0.11	0.5	0.059	38	0.0001	0.3	0.057	669	0.0002	<0.02	<0.02	0.0089	0.133	0.749	<0.002	41.31	49.95	8.64	9.5%
17-Jun-08	19	307	0.0002	#N/A	15.6	0.485	#N/A	<0.001	0.24	0.028	0.48	0.0176	24.5	0.0002	0.37	0.052	380	0.0002	<0.005	<0.005	0.0041	0.04	0.44	<0.0005	22.35	26.88	4.52	9.2%
24-Jun-08	20	403	0.0007	0.013	20.2	0.574	0.1	<0.0005	0.27	0.108	0.65	0.0199	29.3	0.0004	0.43	0.0509	451	0.0003	0.0008	0.012	0.0061	0.054	0.575	<0.001	30.31	34.05	3.74	5.8%
1-Jul-08	21																											

Date Reporting Units	Cycle No.	Volume mL		pH	Redox mV	Cond umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl mg/L	F mg/L	Hardness mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L
		Input	Output				pH 4.5 mg CaCO3/L	pH 8.3 mg CaCO3/L																			
8-Feb-08	0	500	455	7.5	444	1531	#N/A	5.6	41.2	925	1300	23.8	1.63	942	0.0191	0.00019	0.0004	0.0136	<0.0000	0.00000	0.022	0.0002	343	<0.0001	0.0052	0.0856	0.005
12-Feb-08	1	500	515	7.18	415	1038	#N/A	9.2	26.7	529	920	31.7	1.78	620	0.061	0.00009	0.0005	0.0143	0.0002	0.00000	0.016	0.0007	221	<0.0001	0.0314	0.765	0.005
19-Feb-08	2	500	395	4.34	578	1987	4.8	675.9	#N/A	1326	#N/A	#N/A	#N/A	728	41.8	<0.0005	0.0009	0.024	0.0172	<0.001	0.023	0.0475	230	0.004	1.98	317	7.52
26-Feb-08	3	500	505	3.64	597	2011	18.7	776.8	#N/A	1358	#N/A	#N/A	#N/A	675	69.6	<0.0005	0.0018	0.02	0.0258	<0.001	0.024	0.0581	200	0.014	1.98	188	38.5
4-Mar-08	4	500	470	3.35	601	2244	46	1110	#N/A	1447	#N/A	#N/A	#N/A	495	67.3	<0.005	0.002	0.017	0.025	<0.01	0.072	0.052	148	0.085	1.63	406	67.6
11-Mar-08	5	500	430	3.07	544	4070	90	2140	#N/A	2544	4200	0.5	129	634	93.4	<0.002	0.006	0.013	0.038	<0.0005	<0.5	0.0811	199	0.404	2.24	811	225
18-Mar-08	6	500	445	2.97	571	3810	90	2150	#N/A	2269	#N/A	#N/A	#N/A	444	76.8	<0.002	0.0075	0.007	0.0267	<0.004	0.03	0.0698	138	0.734	1.7	662	245
25-Mar-08	7	500	420	2.86	530	4830	175	3350	#N/A	2912	#N/A	#N/A	#N/A	564	81.2	<0.0005	0.006	0.005	0.0269	<0.001	0.055	0.0665	179	1.3	1.98	742	416
1-Apr-08	8	500	490	2.84	525	4170	175	3275	#N/A	2669	#N/A	#N/A	#N/A	476	43.7	<0.0005	0.0058	0.004	0.0154	<0.001	0.015	0.0431	160	1.23	1.23	465	419
8-Apr-08	9	500	415	3.03	567	3490	250	1875	#N/A	2536	#N/A	#N/A	#N/A	519	40.2	<0.002	0.0066	0.006	0.0119	<0.004	0.367	0.0302	184	1.38	1.01	414	434
15-Apr-08	10	500	480	3.14	544	3580	225	2525	#N/A	2305	3600	0.9	21	409	37.8	0.0008	0.007	0.0043	0.0108	<0.0001	<1	0.0263	137	1.45	0.965	368	503
22-Apr-08	11	500	500	3.15	573	3660	225	1950	#N/A	2231	#N/A	#N/A	#N/A	405	31.1	<0.002	0.0036	0.004	0.0079	<0.004	<0.2	0.0209	133	1.21	0.767	275	527
29-Apr-08	12	500	470	2.77	574	3770	275	1725	#N/A	2153	#N/A	#N/A	#N/A	416	32.6	<0.002	0.0029	<0.004	0.0077	<0.004	<0.2	0.0183	135	1.42	0.801	262	493
6-May-08	13	500	475	2.74	580	4640	325	2550	#N/A	2420	#N/A	#N/A	#N/A	568	36.8	<0.002	0.0034	<0.004	0.0071	<0.004	<0.2	0.0172	184	1.85	0.922	281	680
13-May-08	14	500	495	2.86	588	3800	225	1650	#N/A	1855	#N/A	#N/A	#N/A	469	27.5	<0.0005	0.0017	0.004	0.0055	<0.001	<0.05	0.0123	154	1.27	0.699	189	346
20-May-08	15	500	445	2.63	530	4230	425	3425	#N/A	3025	4800	<0.5	0.55	621	41.6	0.001	0.0048	0.0022	0.0057	<0.0001	<1	0.0125	200	1.87	0.89	232	865
27-May-08	16	500	450	2.79	562	4500	275	2050	#N/A	2091	#N/A	#N/A	#N/A	544	28.1	<0.0005	0.0019	0.003	0.0034	<0.001	<0.05	0.0077	177	1.09	0.614	141	584
3-Jun-08	17	500	465	2.73	533	4030	300	2300	#N/A	2385	#N/A	#N/A	#N/A	701	30	<0.002	0.0022	<0.004	0.0033	<0.004	<0.2	0.0083	236	1.09	0.68	139	679
10-Jun-08	18	500	480	2.77	538	2870	250	1225	#N/A	1539	#N/A	#N/A	#N/A	555	17.6	<0.0005	0.0014	0.003	0.002	<0.001	<0.05	0.0049	192	0.563	0.348	78.6	407
17-Jun-08	19	500	485	2.82	600	2700	250	1075	#N/A	1311	#N/A	#N/A	#N/A	426	15.7	<0.0005	0.0016	0.003	0.0015	<0.001	<0.05	0.0042	145	0.51	0.324	69.9	376
24-Jun-08	20	500	460	2.67	656	3780	325	1975	#N/A	2482	3000	<0.5	0.45	553	24	0.0002	0.0019	0.0026	0.0019	<0.0000	<0.5	0.0064	180	0.926	0.5	91.1	629
1-Jul-08	21	500	475	2.51	524	3360	425	1675	#N/A																		

Leachate Chemistry for HC-2-C

Date Reporting Units	Cycle No.	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	5E-05	0.0073	20.9	0.378	0.08	0.0127	0.0114	<0.002	12	0.004	1	0.0006	7.35	0.849	298	0.0001	0.0016	<0.0005	0.0006	<0.0002	0.0058	<0.0001	20.85	19.15	-1.71	-4.3%
12-Feb-08	1	0.0009	0.007	16.5	0.564	0.04	0.0067	0.0312	0.002	8.46	0.0021	1.11	1E-05	4.12	0.597	216	0.0001	0.0002	0.0007	0.0001	<0.0002	0.0473	<0.0001	12.54	12.64	0.09	0.4%
19-Feb-08	2	0.0041	#N/A	37.4	12.4	#N/A	<0.001	1.79	<0.01	16.5	0.0215	11.4	<0.00002	3.37	0.815	479	0.0019	<0.005	<0.005	0.0132	<0.005	5.42	<0.0005	27.63	30.30	2.67	4.6%
26-Feb-08	3	0.0094	#N/A	43	15.1	#N/A	0.005	2.19	<0.01	16.6	0.0113	24.5	2E-05	2.18	0.676	442	0.0022	<0.005	<0.005	0.0144	<0.005	6.58	<0.0005	28.29	30.20	1.91	3.3%
4-Mar-08	4	0.011	#N/A	30.3	9.95	#N/A	<0.01	1.82	<0.1	14.1	0.036	15.4	<0.0002	2.1	0.435	444	0.0022	<0.05	<0.05	0.025	<0.05	7.57	<0.005	30.15	34.89	4.74	7.3%
11-Mar-08	5	0.0136	0.065	33	10.7	<1	<0.005	2.23	<0.2	10	0.082	25.9	<0.0005	<1	0.429	829	0.0021	0.001	<0.05	0.0411	<0.02	13.2	<0.01	59.79	62.25	2.46	2.0%
18-Mar-08	6	0.0019	#N/A	24.3	7.12	#N/A	<0.004	1.6	<0.04	2.5	0.0732	21.3	<0.00002	0.6	0.177	775	0.001	<0.02	<0.02	0.0338	<0.02	11.3	<0.002	47.27	52.97	5.70	5.7%
25-Mar-08	7	0.0004	#N/A	28.8	7.05	#N/A	<0.001	1.64	<0.01	1.5	0.0755	49.6	7E-05	0.85	0.155	990	0.0007	<0.005	<0.005	0.0337	0.015	11.2	<0.0005	60.67	67.87	7.20	5.6%
1-Apr-08	8	0.0008	#N/A	18.8	3.76	#N/A	0.002	1.02	<0.01	0.83	0.053	27.6	9E-05	0.63	0.107	838	0.0005	<0.005	0.006	0.0214	0.02	6.84	<0.0005	55.60	53.26	-2.34	-2.1%
8-Apr-08	9	0.0012	#N/A	14.9	2.47	#N/A	<0.004	0.791	<0.04	0.9	0.0634	27.6	0.0002	0.8	0.139	790	0.0003	<0.02	0.039	0.0148	0.025	4.68	<0.002	52.83	52.37	-0.47	-0.4%
15-Apr-08	10	0.001	0.023	16.4	2.17	<0.2	0.015	0.753	0.143	0.5	0.0565	32.1	0.0001	0.5	0.101	745	0.0003	0.0009	0.029	0.0137	0.037	4.19	<0.002	48.02	51.91	3.88	3.9%
22-Apr-08	11	<0.0008	#N/A	17.7	1.79	#N/A	<0.004	0.623	<0.04	0.4	0.0428	32.3	<0.00002	0.4	0.092	726	0.0003	<0.02	<0.02	0.0115	0.035	3.03	<0.002	46.48	49.37	2.89	3.0%
29-Apr-08	12	0.0011	#N/A	19.1	1.6	#N/A	<0.004	0.628	<0.04	0.3	0.0401	26.5	<0.00002	0.4	0.099	702	0.0002	<0.02	<0.02	0.0115	0.053	2.71	<0.002	44.85	48.50	3.64	3.9%
6-May-08	13	<0.0008	#N/A	26.4	1.6	#N/A	0.004	0.702	0.056	0.5	0.0522	34.5	<0.00002	0.3	0.119	849	0.0003	<0.02	<0.02	0.012	0.082	2.45	<0.002	50.42	62.78	12.37	10.9%
13-May-08	14	<0.0002	#N/A	20.8	1.17	#N/A	<0.001	0.517	0.015	0.37	0.037	29.9	5E-05	0.66	0.096	665	0.0002	<0.005	<0.005	0.009	0.068	1.59	<0.0005	38.65	38.46	-0.18	-0.2%
20-May-08	15	0.0008	0.025	29.3	1.19	<0.2	0.002	0.655	0.105	0.4	0.0743	46.7	<0.0001	0.6	0.128	939	0.0003	0.001	<0.01	0.0118	0.115	1.64	<0.002	63.02	73.25	10.23	7.5%
27-May-08	16	0.0007	#N/A	25	0.824	#N/A	<0.001	0.45	0.025	0.42	0.0528	38.7	7E-05	0.54	0.109	748	0.0002	<0.005	<0.005	0.0079	0.078	0.969	<0.0005	43.56	51.53	7.97	8.4%
3-Jun-08	17	<0.0008	#N/A	27.4	0.845	#N/A	<0.004	0.506	<0.04	0.4	0.0662	37	0.0001	0.4	0.156	854	0.0002	<0.02	<0.02	0.0074	0.103	0.978	<0.002	49.69	60.17	10.48	9.5%
10-Jun-08	18	0.0003	#N/A	18.5	0.556	#N/A	<0.001	0.28	0.011	0.33	0.0404	35.3	0.0001	0.35	0.129	538	0.0002	<0.005	0.008	0.0049	0.038	0.562	<0.0005	32.06	39.15	7.09	10.0%
17-Jun-08	19	0.0004	#N/A	15.7	0.421	#N/A	<0.001	0.251	0.055	0.49	0.0498	31.4	0.0002	0.75	0.115	446	0.0002	<0.005	<0.005	0.0047	0.041	0.405	<0.0005	27.31	34.24	6.92	11.2%
24-Jun-08	20	0.0006	0.015	25.4	0.585	<0.1	<0.0005	0.383	0.03	0.61	0.0567	41.1	0.0005	0.42	0.12	713	0.0003	0.0011	0.008	0.0081	0.11	0.598	<0.001	51.71	52.61	0.90	0.9%
1-Jul-08	21																										

Date Reporting Units	Cycle No.	Volume mL		pH	Redox mV	Cond umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl mg/L	F mg/L	Hardness mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L
		Input	Output				pH 4.5 mg CaCO3/L	pH 8.3 mg CaCO3/L																			
8-Feb-08	0	500	525	7.6	442	1997	#N/A	7.4	58.5	1327	1800	35.3	2.05	1300	0.0109	0.00019	0.0005	0.0129	<0.0000	0.00000	0.028	0.0003	467	<0.0001	0.0108	0.2	0.002
12-Feb-08	1	500	530	7.55	415	1264	#N/A	9.5	48.7	637	1100	39.3	1.28	763	0.0059	0.00008	0.0002	0.011	<0.0000	0.00000	0.02	0.0001	277	<0.0001	0.0047	0.147	0.003
19-Feb-08	2	500	480	7.12	413	1058	#N/A	7.4	32.9	553	#N/A	#N/A	#N/A	699	0.141	<0.0005	0.0002	0.015	<0.0001	<0.001	0.017	0.0007	253	<0.001	0.0383	0.674	<0.005
26-Feb-08	3	500	455	4.96	463	1801	#N/A	463.8	1.7	1172	#N/A	#N/A	#N/A	737	37.2	<0.0005	0.0005	0.026	0.0158	<0.001	0.034	0.0454	234	<0.001	1.99	166	5.19
4-Mar-08	4	500	500	3.67	522	2113	24.6	1020	#N/A	1421	#N/A	#N/A	#N/A	445	61.9	<0.005	0.001	0.015	0.026	<0.01	0.058	0.0552	135	0.031	1.72	397	41.4
11-Mar-08	5	500	395	3.13	542	4090	80	2230	#N/A	2563	4700	<0.5	151	542	110	<0.002	<0.002	0.01	0.044	<0.0005	<0.5	0.1	162	0.345	2.75	957	157
18-Mar-08	6	500	440	2.95	572	4440	120	2390	#N/A	2820	#N/A	#N/A	#N/A	489	106	<0.002	0.0028	0.007	0.0364	<0.004	0.02	0.0896	149	0.783	2.36	858	235
25-Mar-08	7	500	420	2.85	534	4850	200	3200	#N/A	3120	#N/A	#N/A	#N/A	580	91	<0.0005	0.0022	0.006	0.0303	<0.001	0.044	0.0713	185	1.25	2.3	793	372
1-Apr-08	8	500	460	2.83	535	4370	200	3075	#N/A	2751	#N/A	#N/A	#N/A	483	58.5	<0.0005	0.0032	0.005	0.0218	<0.001	0.017	0.0526	157	1.31	1.6	539	513
8-Apr-08	9	500	410	2.97	569	4930	300	3075	#N/A	3563	#N/A	#N/A	#N/A	755	68.1	<0.002	0.0034	0.006	0.0207	<0.004	0.321	0.0484	262	2.21	1.82	659	740
15-Apr-08	10	500	445	3.15	543	4340	250	3100	#N/A	2684	4600	0.6	25.8	533	42.8	0.0005	0.0027	0.0051	0.0127	<0.0001	<1	0.03	182	1.64	1.24	406	734
22-Apr-08	11	500	440	3.06	576	5160	300	3200	#N/A	3750	#N/A	#N/A	#N/A	718	43	<0.002	0.0019	0.005	0.0114	<0.004	<0.2	0.0288	243	1.95	1.31	401	1010
29-Apr-08	12	500	430	2.66	579	4770	425	2075	#N/A	2772	#N/A	#N/A	#N/A	575	34.8	<0.002	0.0022	0.006	0.007	<0.004	<0.2	0.0167	197	1.9	0.965	281	726
6-May-08	13	500	430	2.65	579	5910	475	3475	#N/A	3775	#N/A	#N/A	#N/A	719	41.8	<0.002	0.0028	0.004	0.0063	<0.004	<0.2	0.0156	238	2.46	1.15	309	1060
13-May-08	14	500	460	2.78	595	4020	375	1825	#N/A	1868	#N/A	#N/A	#N/A	449	22.9	<0.0005	0.0014	0.005	0.0039	<0.001	<0.05	0.0088	151	1.23	0.619	151	362
20-May-08	15	500	440	2.59	532	4160	425	2950	#N/A	3218	3800	<0.5	0.49	567	31.7	0.0008	0.0035	0.0041	0.0037	<0.0001	<1	0.0097	184	1.49	0.77	165	885
27-May-08	16	500	460	2.77	535	4220	350	1875	#N/A	2134	#N/A	#N/A	#N/A	490	26.8	<0.0005	0.0014	0.004	0.0026	<0.001	<0.05	0.0072	154	1.11	0.626	115	688
3-Jun-08	17	500	465	2.81	497	3900	200	2200	#N/A	2304	#N/A	#N/A	#N/A	476	26.8	<0.002	0.0018	<0.004	0.0024	<0.004	<0.2	0.0067	148	1.05	0.639	105	746
10-Jun-08	18	500	475	2.50	528	4030	550	2100	#N/A	2182	#N/A	#N/A	#N/A	446	30	<0.002	0.0022	<0.004	0.0023	<0.004	<0.2	0.0061	136	1.09	0.612	92.9	686
17-Jun-08	19	500	480	2.93	597	2360	175	925	#N/A	1170	#N/A	#N/A	#N/A	409	13.1	<0.0005	0.001	0.003	0.0012	<0.001	<0.05	0.0031	135	0.362	0.28	41.9	370
24-Jun-08	20	500	420	2.58	655	4480	525	2425	#N/A	2938	3500	<0.5	0.47	573	27.7	0.0002	0.0019	0.0033	0.0025	<0.0000	<0.5	0.0072	178	1.1	0.667	96.1	821
1-Jul-08	21	500	465	2.54	520	3580	375	2000	#N/A																		

Date Reporting Units	Cycle No	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	2E-05	0.0095	31.7	0.639	0.18	0.015	0.0202	<0.002	15.7	0.0048	1.14	0.0015	9.23	1.19	426	0.0002	0.0006	<0.0005	0.0009	<0.0002	0.0071	<0.0001	29.92	26.32	-3.60	-6.4%
12-Feb-08	1	1E-05	0.0064	17.3	0.437	0.03	0.0091	0.009	<0.002	8.99	0.002	1.14	0.0009	3.35	0.682	271	6E-05	8E-05	0.0006	0.0006	<0.0002	0.0049	<0.0001	15.42	15.48	0.06	0.2%
19-Feb-08	2	<0.0002	#N/A	16.5	1.25	#N/A	0.004	0.039	<0.01	7.73	0.003	1.53	<0.00002	1.91	0.704	232	0.0001	<0.005	<0.005	0.0004	<0.005	0.047	<0.0005	12.18	14.22	2.04	7.7%
26-Feb-08	3	0.0016	#N/A	37.3	17.8	#N/A	0.004	1.94	<0.01	17.8	0.012	16.8	4E-05	1.47	1.02	403	0.0019	<0.005	<0.005	0.0065	<0.005	4.71	<0.0005	24.45	25.09	0.64	1.3%
4-Mar-08	4	0.007	#N/A	26.2	10.3	#N/A	<0.01	1.94	<0.1	14.5	0.03	15.1	<0.0002	1.4	0.451	426	0.0021	<0.05	<0.05	0.023	<0.05	7.25	<0.005	29.60	31.39	1.78	2.9%
11-Mar-08	5	0.0051	0.078	33	12.3	<1	<0.005	2.84	<0.2	9	0.089	22.4	<0.0005	<1	0.321	858	0.002	<0.001	<0.05	0.0472	<0.02	16.3	<0.01	61.34	63.17	1.83	1.5%
18-Mar-08	6	0.0015	#N/A	28.3	9.21	#N/A	<0.004	2.23	<0.04	2.5	0.0901	21.6	<0.00002	0.5	0.138	919	0.0009	<0.02	<0.02	0.044	<0.02	15.2	<0.002	58.75	62.92	4.17	3.4%
25-Mar-08	7	0.0029	#N/A	28.6	7.74	#N/A	<0.001	1.88	<0.01	1.25	0.0886	46.1	7E-05	0.68	0.125	993	0.0007	<0.005	<0.005	0.0348	0.012	11.7	<0.0005	65.00	68.53	3.53	2.6%
1-Apr-08	8	0.0008	#N/A	21.9	5.22	#N/A	0.003	1.31	<0.01	0.63	0.0688	32.1	0.0001	0.58	0.093	937	0.0004	<0.005	0.005	0.0276	0.024	8.02	<0.0005	57.31	62.47	5.16	4.3%
8-Apr-08	9	0.0034	#N/A	24.4	4.41	#N/A	<0.004	1.41	<0.04	0.6	0.114	39.8	0.0001	0.7	0.157	1240	0.0004	<0.02	0.02	0.0231	0.05	7.26	<0.002	74.23	84.54	10.31	6.5%
15-Apr-08	10	0.0005	0.03	19.1	2.5	<0.2	0.007	0.934	0.098	0.3	0.0916	40.6	<0.0001	0.4	0.115	942	0.0002	0.0009	0.021	0.0139	0.057	4.34	<0.002	55.92	68.54	12.62	10.1%
22-Apr-08	11	0.0008	#N/A	27.1	2.54	#N/A	<0.004	0.997	<0.04	0.2	0.0895	52.3	0.0001	0.5	0.136	1240	0.0003	<0.02	<0.02	0.0154	0.087	3.88	<0.002	78.13	87.09	8.97	5.4%
29-Apr-08	12	<0.0008	#N/A	20.5	1.39	#N/A	<0.004	0.7	0.074	<0.2	0.0962	36.7	<0.00002	0.8	0.135	942	0.0003	<0.02	<0.02	0.011	0.079	2.12	<0.002	57.75	65.54	7.79	6.3%
6-May-08	13	<0.0008	#N/A	30.3	1.42	#N/A	0.005	0.834	0.195	0.2	0.114	48.1	<0.00002	0.3	0.14	1170	0.0002	<0.02	<0.02	0.0122	0.136	2.01	<0.002	78.65	88.07	9.42	5.7%
13-May-08	14	0.0003	#N/A	17.5	0.805	#N/A	<0.001	0.447	0.075	0.17	0.071	33.6	6E-05	0.69	0.091	660	0.0002	<0.005	<0.005	0.0078	0.069	0.997	<0.0005	38.92	37.45	-1.47	-1.9%
20-May-08	15	0.0003	0.02	26	0.865	<0.2	0.001	0.569	0.112	0.2	0.0878	48.2	<0.0001	0.6	0.107	912	0.0002	0.001	<0.01	0.0086	0.121	1.08	<0.002	67.04	70.25	3.21	2.3%
27-May-08	16	0.0002	#N/A	25.8	0.725	#N/A	<0.001	0.463	0.084	0.2	0.0696	43	4E-05	0.5	0.084	802	0.0002	<0.005	<0.005	0.007	0.102	0.768	<0.0005	44.46	55.14	10.68	10.7%
3-Jun-08	17	0.003	#N/A	25.7	0.693	#N/A	<0.004	0.475	0.062	0.2	0.0853	38	0.0001	0.4	0.087	748	<0.0002	<0.02	<0.02	0.0073	0.127	0.739	<0.002	48.00	57.49	9.49	9.0%
10-Jun-08	18	<0.0008	#N/A	25.6	0.636	#N/A	<0.004	0.459	0.286	0.2	0.0807	39.2	0.0001	0.2	0.077	736	<0.0002	<0.02	<0.02	0.0084	0.14	0.623	<0.002	45.46	55.24	9.78	9.7%
17-Jun-08	19	0.0008	#N/A	17.6	0.484	#N/A	<0.001	0.247	0.015	0.27	0.0319	32.2	9E-05	0.46	0.081	439	0.0001	<0.005	<0.005	0.0034	0.037	0.369	<0.0005	24.38	32.06	7.68	13.6%
24-Jun-08	20	0.0002	0.018	31.4	0.752	<0.1	<0.0005	0.523	0.097	0.36	0.0823	38.5	0.0004	0.54	0.0925	823	0.0002	0.0009	0.012	0.0097	0.189	0.676	<0.001	61.21	64.39	3.18	2.5%
1-Jul-08	21																										

Date Reporting Units	Cycle No.	Volume mL		pH	Redox mV	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl	F	Hardness mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe
		Input	Output				pH 4.5 mg CaCO3/L	pH 8.3 mg CaCO3/L				mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
8-Feb-08	0	500	595	7.59	444	1901	#N/A	5.4	40.0	1165	1700	12.7	1.95	1250	0.0141	0.00023	0.0002	0.0101	1E-05	0.00000	0.016	0.0001	482	<0.0001	0.0009	0.0043	0.003
12-Feb-08	1	500	430	7.66	414	1880	#N/A	10.1	52.5	1179	1700	4.7	2	1190	0.0091	0.0002	0.0002	0.0113	1E-05	0.00000	0.02	1E-04	462	<0.0001	0.0011	0.0054	0.005
19-Feb-08	2	500	520	7.64	407	1623	#N/A	6.8	43.4	1173	#N/A	#N/A	#N/A	1170	0.009	<0.0005	0.0002	0.01	<0.0001	<0.001	0.015	0.0001	459	<0.001	0.0012	0.0051	0.006
26-Feb-08	3	500	515	7.33	387	1380	#N/A	7.2	41.4	819	#N/A	#N/A	#N/A	906	0.013	<0.0005	0.0003	0.01	<0.0001	<0.001	0.011	0.0001	357	<0.001	0.0019	0.0052	<0.005
4-Mar-08	4	500	460	7.10	372	1701	#N/A	9.1	35.4	992	#N/A	#N/A	#N/A	965	0.022	<0.0005	0.0003	0.012	<0.0001	<0.001	0.011	0.0001	380	<0.001	0.0026	0.0202	0.016
11-Mar-08	5	500	415	7.38	438	1593	#N/A	5.4	28.1	939	1400	<0.5	3.8	947	0.0097	0.00021	0.0004	0.011	<0.00001	0.00000	0.008	0.0002	374	0.0003	0.0033	0.0277	0.008
18-Mar-08	6	500	420	7.31	438	1523	#N/A	5.4	23.4	955	#N/A	#N/A	#N/A	1160	0.007	<0.0005	0.0009	0.01	<0.0001	<0.001	0.007	0.0002	461	<0.001	0.004	0.0203	0.006
25-Mar-08	7	500	420	7.28	435	1426	#N/A	4.7	20.6	832	#N/A	#N/A	#N/A	945	0.009	<0.0005	0.0003	0.01	<0.0001	<0.001	0.01	0.0002	374	<0.001	0.0048	0.0331	0.011
1-Apr-08	8	500	410	7.22	450	1434	#N/A	4.1	15.2	935	#N/A	#N/A	#N/A	1100	0.006	<0.0005	0.0007	0.01	<0.0001	<0.001	0.008	0.0003	434	<0.001	0.0057	0.0183	0.008
8-Apr-08	9	500	420	7.28	418	1450	#N/A	4.6	13.7	807	#N/A	#N/A	#N/A	827	0.024	<0.0005	0.0004	0.013	0.0001	<0.001	0.059	0.0003	326	<0.001	0.0075	0.0849	0.324
15-Apr-08	10	500	400	7.03	438	1533	#N/A	5.3	10.9	811	1300	<0.5	1.8	1010	0.0078	0.00019	0.0003	0.0146	<0.00001	0.00000	<0.05	0.0005	400	0.0002	0.0088	0.0447	0.042
22-Apr-08	11	500	430	7.20	425	1274	#N/A	5.1	10.8	721	#N/A	#N/A	#N/A	785	0.007	<0.0005	0.0002	0.013	<0.0001	<0.001	<0.05	0.0005	309	<0.001	0.0089	0.0374	0.031
29-Apr-08	12	500	400	7.14	409	958	#N/A	3.4	9.0	514	#N/A	#N/A	#N/A	587	0.005	<0.0005	0.0002	0.013	<0.0001	<0.001	<0.05	0.0004	230	<0.001	0.0078	0.0262	<0.005
6-May-08	13	500	440	7.05	357	889	#N/A	4.8	8.7	530	#N/A	#N/A	#N/A	474	0.006	<0.0005	0.0003	0.015	<0.0001	<0.001	0.054	0.0004	185	<0.001	0.0069	0.0235	0.019
13-May-08	14	500	450	7.14	350	693	#N/A	4.4	9.2	402	#N/A	#N/A	#N/A	380	0.008	<0.0005	<0.0001	0.014	<0.0001	<0.001	<0.05	0.0004	148	<0.001	0.0079	0.0226	<0.005
20-May-08	15	500	440	7.24	298	560	#N/A	4.4	8.1	305	420	<0.5	2.68	294	0.0019	0.00069	0.0005	0.0195	1E-05	0.00000	<0.05	0.0003	113	<0.0001	0.0063	0.0234	0.003
27-May-08	16	500	445	7.09	392	350	#N/A	3.9	9.3	169	#N/A	#N/A	#N/A	205	0.004	<0.0005	0.0002	0.017	<0.0001	<0.001	<0.05	0.0003	78.7	<0.001	0.0058	0.0247	<0.005
3-Jun-08	17	500	450	6.97	421	272	#N/A	4.8	6.9	125	#N/A	#N/A	#N/A	146	0.004	<0.0005	0.0001	0.02	<0.0001	<0.001	<0.05	0.0002	55.9	<0.001	0.0049	0.021	<0.005
10-Jun-08	18	500	435	6.98	385	198	#N/A	4.7	7.2	93	#N/A	#N/A	#N/A	112	0.003	<0.0005	<0.0001	0.022	<0.0001	<0.001	<0.05	0.0002	42.7	<0.001	0.0043	0.0192	0.008
17-Jun-08	19	500	490	7.03	267	156	#N/A	5.5	9.3	89	#N/A	#N/A	#N/A	91.3	0.004	<0.0005	0.0001	0.025	<0.0001	<0.001	<0.05	0.0002	34.4	<0.001	0.0045	0.0233	<0.005
24-Jun-08	20	500	470	7.05	266	121	#N/A	6.2	9.5	66	120	<0.5	3.05	71.6	0.0072	0.00012	0.0001	0.027	2E-05	0.00000	<0.05	0.0002	26.6	0.0002	0.0043	0.0238	0.044
1-Jul-08	21	500	460	7.00	377	115	#N/A	3.1	4.9																		
8-Jul-08	22	500																									

Date Reporting Units	Cycle No	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Ti mg/L	Sn mg/L	Tl mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	4E-05	0.0047	11.2	0.259	<0.01	0.0488	0.0029	<0.002	32.3	0.0025	1.37	9E-06	8.36	2.07	406	8E-05	0.0012	<0.0005	0.0022	<0.0002	0.0043	<0.0001	25.53	26.16	0.63	1.2%
12-Feb-08	1	3E-05	0.005	9	0.302	<0.01	0.0443	0.0022	0.002	27.8	0.0011	2.03	7E-06	4.25	1.9	396	6E-05	0.0002	0.0009	0.0021	0.0002	0.004	<0.0001	25.85	24.69	-1.16	-2.3%
19-Feb-08	2	<0.0002	#N/A	6.65	0.338	#N/A	0.034	0.002	<0.01	21.9	0.0009	2.29	<0.00002	2.23	1.69	388	<0.00002	<0.005	<0.005	0.0015	<0.005	0.005	<0.0005	25.30	24.11	-1.20	-2.4%
26-Feb-08	3	<0.0002	#N/A	3.74	0.374	#N/A	0.029	0.002	<0.01	15.3	0.0033	2.89	<0.00002	0.81	1.12	302	8E-05	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0005	17.89	18.55	0.66	1.8%
4-Mar-08	4	<0.0002	#N/A	3.93	0.523	#N/A	0.042	0.002	<0.01	15.7	0.0077	1.56	<0.00002	0.66	1.24	328	9E-05	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0005	21.38	19.72	-1.66	-4.0%
11-Mar-08	5	2E-05	0.0067	3.4	0.659	0.01	0.0413	0.0018	<0.002	16.1	0.0048	2.07	<0.00000	0.42	1.21	352	0.0001	4E-05	<0.0005	0.0007	<0.0002	0.0054	<0.0001	20.32	19.37	-0.95	-2.4%
18-Mar-08	6	<0.0002	#N/A	2.78	0.951	#N/A	0.041	0.002	<0.01	17.9	0.0042	1.8	<0.00002	0.24	1.17	355	0.0001	<0.005	<0.005	0.0005	<0.005	0.009	<0.0005	20.36	23.70	3.34	7.6%
25-Mar-08	7	<0.0002	#N/A	2.61	1.06	#N/A	0.036	0.002	<0.01	14	0.003	2.61	<0.00002	0.26	1.01	327	0.0001	<0.005	<0.005	0.0003	<0.005	0.011	<0.0005	17.74	19.25	1.50	4.1%
1-Apr-08	8	<0.0002	#N/A	2.89	1.27	#N/A	0.039	0.002	0.023	15.6	0.0023	2.04	<0.00002	0.35	1.13	368	0.0001	<0.005	<0.005	0.0003	<0.005	0.01	<0.0005	19.78	22.31	2.53	6.0%
8-Apr-08	9	<0.0002	#N/A	2.8	1.5	#N/A	0.027	0.003	<0.01	11.8	0.0028	2.16	<0.00002	0.23	0.845	295	0.0001	<0.005	0.016	<0.0001	<0.005	0.021	<0.0005	17.09	16.81	-0.28	-0.8%
15-Apr-08	10	8E-05	0.0098	3.72	2.14	0.01	0.0265	0.0025	<0.002	13	0.0028	2.82	<0.00000	0.19	0.973	333	0.0001	3E-05	<0.0005	5E-05	<0.0002	0.017	<0.0001	17.11	20.61	3.49	9.3%
22-Apr-08	11	<0.0002	#N/A	3.61	2.1	#N/A	0.02	0.003	<0.01	11	0.0021	2.61	<0.00002	0.18	0.704	243	0.0001	<0.005	<0.005	<0.0001	<0.005	0.019	<0.0005	15.24	16.01	0.77	2.5%
29-Apr-08	12	<0.0002	#N/A	2.93	1.75	#N/A	0.018	0.002	<0.01	8.76	0.0016	2.44	<0.00002	<0.05	0.525	191	0.0001	<0.005	<0.005	<0.0001	<0.005	0.015	<0.0005	10.89	11.94	1.05	4.6%
6-May-08	13	<0.0002	#N/A	2.91	1.64	#N/A	0.019	0.002	<0.01	8.14	0.002	2.65	<0.00002	1.01	0.48	155	0.0001	<0.005	0.006	<0.0001	<0.005	0.015	<0.0005	11.21	9.68	-1.54	-7.3%
13-May-08	14	<0.0002	#N/A	2.83	1.57	#N/A	0.018	0.008	<0.01	7.18	0.0016	2.65	<0.00002	0.22	0.403	126	8E-05	<0.005	<0.005	<0.0001	<0.005	0.015	<0.0005	8.56	7.80	-0.76	-4.6%
20-May-08	15	2E-05	0.008	2.67	1.33	<0.01	0.0204	0.0017	<0.002	6.9	0.002	3.61	7E-06	0.19	0.331	97	1E-04	2E-05	<0.0005	3E-05	<0.0002	0.0122	<0.0001	6.52	6.03	-0.48	-3.8%
27-May-08	16	<0.0002	#N/A	1.98	1.12	#N/A	0.016	0.001	<0.01	5.68	0.0014	2.66	<0.00002	0.13	0.241	64	7E-05	<0.005	<0.005	<0.0001	<0.005	0.014	<0.0005	3.71	4.24	0.53	6.7%
3-Jun-08	17	<0.0002	#N/A	1.6	0.963	#N/A	0.017	0.002	<0.01	4.65	0.0012	2.54	<0.00002	0.13	0.199	47	7E-05	<0.005	<0.005	<0.0001	<0.005	0.012	<0.0005	2.74	3.04	0.30	5.1%
10-Jun-08	18	<0.0002	#N/A	1.37	0.841	#N/A	0.016	0.001	<0.01	4.38	0.001	2.43	<0.00002	0.07	0.162	35	6E-05	<0.005	<0.005	<0.0001	<0.005	0.009	<0.0005	2.08	2.36	0.27	6.2%
17-Jun-08	19	<0.0002	#N/A	1.31	0.846	#N/A	0.013	0.001	<0.01	4.04	0.001	2.77	<0.00002	0.11	0.152	29	6E-05	<0.005	<0.005	<0.0001	<0.005	0.011	<0.0005	2.04	1.93	-0.11	-2.8%
24-Jun-08	20	5E-05	0.0055	1.23	0.713	<0.01	0.0126	0.0012	0.002	3.48	0.001	2.66	<0.00000	0.11	0.121	21	6E-05	4E-05	<0.0005	9E-06	<0.0002	0.011	<0.0001	1.56	1.52	-0.05	-1.5%
1-Jul-08	21																										
8-Jul-08	22																										

Date Reporting Units	Cycle No.	Volume mL		pH	Redox mV	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl mg/L	F mg/L	Hardness mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L
		Input	Output				pH 4.5 mg CaCO3/L	pH 8.3 mg CaCO3/L																			
8-Feb-08	0	500	490	7.39	452	1506	#N/A	4.2	22.5	905	1300	8.5	1.52	936	0.0172	0.00015	0.0003	0.0101	<0.00001	0.00000	0.012	6E-05	363	<0.0001	0.0004	0.0035	0.004
12-Feb-08	1	500	485	7.63	423	1884	#N/A	9.4	41.1	1234	1700	8	2.15	1250	0.0089	0.00026	0.0006	0.0108	<0.00001	0.00000	0.017	0.0001	485	<0.0001	0.0018	0.0141	0.004
19-Feb-08	2	500	515	7.63	411	1156	#N/A	6.1	32.1	619	#N/A	#N/A	#N/A	765	0.011	<0.0005	0.0004	0.009	<0.0001	<0.001	0.01	0.0001	297	<0.001	0.0018	0.0265	0.005
26-Feb-08	3	500	450	7.60	390	1349	#N/A	6.2	28.5	723	#N/A	#N/A	#N/A	868	0.012	<0.0005	0.0005	0.012	<0.0001	<0.001	0.012	0.0001	339	<0.001	0.0016	0.0083	<0.005
4-Mar-08	4	500	395	7.53	371	1665	#N/A	8.1	29.6	1002	#N/A	#N/A	#N/A	978	0.014	<0.0005	0.0006	0.017	<0.0001	<0.001	0.01	0.0002	382	<0.001	0.0025	0.0403	0.01
11-Mar-08	5	500	445	7.53	428	1485	#N/A	5.4	25.2	885	1300	<0.5	3.9	875	0.0132	0.00024	0.0005	0.0133	<0.00001	0.00000	0.009	0.0002	342	<0.0001	0.0027	0.0238	0.009
18-Mar-08	6	500	425	7.56	422	1259	#N/A	5.0	21.1	780	#N/A	#N/A	#N/A	964	0.009	<0.0005	0.0009	0.01	<0.0001	<0.001	0.007	0.0002	380	<0.001	0.0028	0.0119	<0.005
25-Mar-08	7	500	415	7.43	422	1246	#N/A	4.5	17.5	708	#N/A	#N/A	#N/A	802	0.008	<0.0005	0.0004	0.011	<0.0001	<0.001	0.01	0.0002	317	<0.001	0.0032	0.0245	0.007
1-Apr-08	8	500	420	7.42	438	1407	#N/A	4.2	15.0	774	#N/A	#N/A	#N/A	818	0.01	<0.0005	0.0012	0.012	<0.0001	<0.001	0.053	0.0003	323	<0.001	0.0038	0.0277	0.03
8-Apr-08	9	500	385	7.50	413	1635	#N/A	4.4	15.8	879	#N/A	#N/A	#N/A	958	0.005	<0.0005	0.0005	0.015	<0.0001	<0.001	0.057	0.0004	379	<0.001	0.0058	0.0266	0.012
15-Apr-08	10	500	385	7.29	425	1627	#N/A	5.9	12.8	903	1400	<0.5	2.1	1120	0.0068	0.00023	0.0004	0.0152	<0.00001	0.00000	<0.05	0.0005	445	0.0003	0.0078	0.0309	0.024
22-Apr-08	11	500	460	7.35	425	1361	#N/A	5.6	12.6	886	#N/A	#N/A	#N/A	806	0.006	<0.0005	0.0003	0.014	<0.0001	<0.001	<0.05	0.0005	318	<0.001	0.0071	0.024	0.008
29-Apr-08	12	500	420	7.36	406	1027	#N/A	3.6	9.0	547	#N/A	#N/A	#N/A	622	0.039	<0.0005	0.0003	0.012	<0.0001	<0.001	<0.05	0.0004	245	<0.001	0.0061	0.0316	0.034
6-May-08	13	500	400	7.22	366	1056	#N/A	4.6	9.0	556	#N/A	#N/A	#N/A	598	0.005	<0.0005	0.0003	0.014	<0.0001	<0.001	<0.05	0.0005	235	<0.001	0.0062	0.0208	0.012
13-May-08	14	500	470	7.49	351	842	#N/A	4.7	11.2	419	#N/A	#N/A	#N/A	490	0.006	<0.0005	0.0002	0.012	<0.0001	<0.001	<0.05	0.0004	192	<0.001	0.0074	0.0276	0.011
20-May-08	15	500	455	7.40	315	771	#N/A	3.6	7.8	447	620	<0.5	2.72	444	0.0008	0.00037	0.0004	0.0151	<0.00001	0.00000	<0.05	0.0004	173	<0.0001	0.0066	0.0225	0.002
27-May-08	16	500	415	7.31	401	597	#N/A	3.9	8.2	353	#N/A	#N/A	#N/A	365	0.005	<0.0005	0.0002	0.015	<0.0001	<0.001	<0.05	0.0004	142	<0.001	0.0061	0.0233	0.006
3-Jun-08	17	500	490	7.33	427	450	#N/A	4.7	8.5	252	#N/A	#N/A	#N/A	266	0.004	<0.0005	0.0002	0.016	<0.0001	<0.001	<0.05	0.0004	104	<0.001	0.0061	0.0251	<0.005
10-Jun-08	18	500	460	7.26	395	343	#N/A	4.9	6.6	202	#N/A	#N/A	#N/A	231	0.006	<0.0005	0.0001	0.016	<0.0001	<0.001	<0.05	0.0003	89.9	<0.001	0.0048	0.0203	0.012
17-Jun-08	19	500	460	7.38	280	403	#N/A	5.8	8.8	270	#N/A	#N/A	#N/A	285	0.004	<0.0005	0.0002	0.027	<0.0001	<0.001	<0.05	0.0004	111	<0.001	0.0068	0.0303	<0.005
24-Jun-08	20	500	470	7.39	276	346	#N/A	7	10	223	360	<0.5	2.69	238	0.0042	0.00012	0.0002	0.0268	1E-05	0.00000	<0.05	0.0004	91.8	0.0001	0.0071	0.0313	0.02
1-Jul-08	21	500	470	7.03	391	268	#N/A	3	5																		
8-Jul-08	22	500																									

Leachate Chemistry for HC-2-S

Date Reporting Units	Cycle No	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Ti mg/L	Sn mg/L	Tl mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	2E-05	0.0032	6.94	0.134	<0.01	0.0283	0.0017	<0.002	22.9	0.0011	1.02	:0.00000	6.07	1.36	307	5E-05	0.0006	<0.0005	0.0012	<0.0002	0.0034	<0.0001	19.62	19.53	-0.09	-0.2%
12-Feb-08	1	1E-05	0.0054	10.5	0.309	<0.01	0.0472	0.0023	0.002	32	0.0015	1.9	:0.00000	6.48	1.93	425	0.0001	0.0001	0.0008	0.0022	0.0002	0.0047	<0.0001	26.87	26.17	-0.70	-1.3%
19-Feb-08	2	<0.0002	#N/A	5.44	0.245	#N/A	0.025	0.002	<0.01	17.8	0.0013	1.39	<0.00002	2.57	1.1	253	7E-05	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0005	13.54	15.84	2.30	7.8%
26-Feb-08	3	<0.0002	#N/A	5.38	0.31	#N/A	0.037	0.001	<0.01	17.7	0.0042	2.33	<0.00002	1.73	1.2	289	0.0001	<0.005	<0.005	0.0007	<0.005	0.009	<0.0005	15.63	17.89	2.25	6.7%
4-Mar-08	4	<0.0002	#N/A	5.98	0.47	#N/A	0.055	0.002	<0.01	17.9	0.0053	1.55	<0.00002	1.35	1.44	335	0.0001	<0.005	<0.005	0.0008	<0.005	<0.005	<0.0005	21.47	20.07	-1.40	-3.4%
11-Mar-08	5	9E-06	0.0065	4.82	0.542	<0.01	0.0445	0.0014	<0.002	16.7	0.0039	1.92	:0.00000	0.73	1.3	325	0.0001	3E-05	<0.0005	0.0006	<0.0002	0.0042	<0.0001	19.15	17.92	-1.23	-3.3%
18-Mar-08	6	<0.0002	#N/A	3.51	0.714	#N/A	0.04	0.001	<0.01	17.3	0.0039	1.62	<0.00002	0.34	1.12	290	0.0001	<0.005	<0.005	0.0004	<0.005	0.01	<0.0005	16.67	19.71	3.04	8.3%
25-Mar-08	7	<0.0002	#N/A	2.9	0.776	#N/A	0.037	0.001	<0.01	12.8	0.0024	2.44	<0.00002	0.37	1.04	273	0.0001	<0.005	<0.005	0.0003	<0.005	0.011	<0.0005	15.10	16.40	1.30	4.1%
1-Apr-08	8	<0.0002	#N/A	2.58	0.901	#N/A	0.038	0.002	<0.01	12.6	0.0022	1.71	<0.00002	0.29	1.02	293	0.0001	<0.005	0.017	0.0002	<0.005	0.006	<0.0005	16.42	16.66	0.24	0.7%
8-Apr-08	9	<0.0002	#N/A	3.14	1.37	#N/A	0.037	0.002	<0.01	14.1	0.0025	2.24	<0.00002	0.25	1.1	346	0.0001	<0.005	0.009	0.0002	<0.005	0.009	<0.0005	18.63	19.54	0.91	2.4%
15-Apr-08	10	7E-05	0.011	3.41	1.92	0.01	0.0357	0.0022	<0.002	15.5	0.0026	2.93	:0.00000	0.26	1.19	353	0.0001	3E-05	<0.0005	8E-05	<0.0002	0.0169	<0.0001	19.07	22.89	3.83	9.1%
22-Apr-08	11	<0.0002	#N/A	2.81	1.69	#N/A	0.025	0.002	<0.01	11.5	0.0026	2.69	<0.00002	0.19	0.797	255	0.0001	<0.005	<0.005	<0.0001	<0.005	0.025	<0.0005	18.71	16.40	-2.31	-6.6%
29-Apr-08	12	<0.0002	#N/A	2.64	1.46	#N/A	0.019	0.002	<0.01	8.97	0.0014	2.22	<0.00002	0.15	0.578	203	0.0001	<0.005	<0.005	<0.0001	<0.005	0.014	<0.0005	11.58	12.68	1.10	4.5%
6-May-08	13	<0.0002	#N/A	3.08	1.63	#N/A	0.023	0.002	<0.01	9.28	0.0018	2.59	<0.00002	0.57	0.608	197	0.0001	<0.005	<0.005	<0.0001	<0.005	0.013	<0.0005	11.76	12.24	0.48	2.0%
13-May-08	14	<0.0002	#N/A	2.85	1.58	#N/A	0.02	0.002	<0.01	7.87	0.0013	2.49	<0.00002	0.13	0.492	162	9E-05	<0.005	<0.005	<0.0001	<0.005	0.015	<0.0005	8.95	10.02	1.07	5.6%
20-May-08	15	7E-06	0.0084	2.98	1.48	<0.01	0.0241	0.0016	<0.002	8.19	0.002	3.52	:0.00000	0.1	0.465	150	0.0001	2E-05	<0.0005	2E-05	<0.0002	0.0126	<0.0001	9.47	9.09	-0.38	-2.0%
27-May-08	16	<0.0002	#N/A	2.56	1.31	#N/A	0.021	0.001	<0.01	7.17	0.0012	2.73	<0.00002	0.11	0.37	119	9E-05	<0.005	<0.005	<0.0001	<0.005	0.013	<0.0005	7.52	7.48	-0.03	-0.2%
3-Jun-08	17	<0.0002	#N/A	1.87	1.18	#N/A	0.018	0.002	<0.01	5.86	0.0012	2.29	<0.00002	0.13	0.299	88	8E-05	<0.005	<0.005	<0.0001	<0.005	0.015	<0.0005	5.42	5.50	0.08	0.7%
10-Jun-08	18	<0.0002	#N/A	1.64	0.97	#N/A	0.016	0.001	<0.01	4.99	0.0009	2.08	<0.00002	0.08	0.238	73	6E-05	<0.005	<0.005	<0.0001	<0.005	0.012	<0.0005	4.34	4.75	0.41	4.5%
17-Jun-08	19	<0.0002	#N/A	2.19	1.39	#N/A	0.016	0.002	<0.01	6.18	0.0011	2.74	<0.00002	0.1	0.323	93	8E-05	<0.005	<0.005	<0.0001	<0.005	0.017	<0.0005	5.80	5.88	0.08	0.7%
24-Jun-08	20	2E-05	0.006	2.2	1.27	<0.01	0.0158	0.0018	0.002	5.43	0.0011	2.74	:0.00000	0.12	0.272	83	8E-05	4E-05	<0.0005	9E-06	<0.0002	0.0164	<0.0001	4.85	4.91	0.06	0.6%
1-Jul-08	21																										
8-Jul-08	22																										

Date Reporting Units	Cycle No	Volume mL		pH	Redox mV	Cond umhos/cm	Acidity pH 4.5	Acidity pH 8.3	Alkalinity mgCaCO3/L	Sulphate mg/L	TDS mg/L	Cl mg/L	F mg/L	Hardness mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L
		Input	Output				mg CaCO3/L	mg CaCO3/L																			
8-Feb-08	0	500	575	7.43	458	2251	#N/A	6.5	41.5	1442	2000	15.8	2.51	1510	0.012	0.0003	0.0009	0.0117	<0.00005	<0.00005	<0.03	0.0002	575	<0.0005	0.0014	0.0023	<0.005
12-Feb-08	1	500	480	7.67	423	1850	#N/A	9.8	48.7	1220	1700	2.8	2.18	1170	0.0091	0.00024	0.0006	0.0106	<0.00005	<0.00000	0.016	0.0001	460	<0.0001	0.0017	0.0183	0.004
19-Feb-08	2	500	505	7.62	418	1441	#N/A	6.5	40.3	790	#N/A	#N/A	#N/A	1010	0.012	<0.0005	0.0004	0.009	<0.0001	<0.001	0.011	0.0001	396	<0.001	0.0026	0.0254	0.005
26-Feb-08	3	500	490	7.72	394	1692	#N/A	6.6	44.2	1010	#N/A	#N/A	#N/A	1160	0.008	<0.0005	0.0004	0.013	<0.0001	<0.001	0.012	0.0004	458	<0.001	0.004	0.0232	<0.005
4-Mar-08	4	500	435	7.56	381	1595	#N/A	7.8	31.2	912	#N/A	#N/A	#N/A	934	0.01	<0.0005	0.0005	0.012	<0.0001	<0.001	0.008	0.0002	369	<0.001	0.0029	0.0168	0.008
11-Mar-08	5	500	415	7.54	430	1311	#N/A	4.6	24.0	771	1100	<0.5	3.2	754	0.0088	0.0002	0.0003	0.0097	<0.00005	<0.00000	0.007	0.0001	298	<0.0001	0.0025	0.0133	0.004
18-Mar-08	6	500	420	7.56	425	1182	#N/A	5.1	21.5	775	#N/A	#N/A	#N/A	921	0.006	<0.0005	0.0008	0.009	<0.0001	<0.001	0.006	0.0002	365	<0.001	0.003	0.0122	<0.005
25-Mar-08	7	500	430	7.36	429	1060	#N/A	4.2	15.9	566	#N/A	#N/A	#N/A	684	0.006	<0.0005	0.0003	0.009	<0.0001	<0.001	0.009	0.0002	270	<0.001	0.0033	0.0171	<0.005
1-Apr-08	8	500	400	7.63	435	1169	#N/A	3.4	14.2	590	#N/A	#N/A	#N/A	626	0.011	<0.0005	0.0008	0.01	<0.0001	<0.001	0.047	0.0003	247	<0.001	0.0038	0.0406	0.031
8-Apr-08	9	500	430	7.52	413	1137	#N/A	3.7	13.4	585	#N/A	#N/A	#N/A	573	0.007	<0.0005	0.0007	0.01	<0.0001	<0.001	0.017	0.0003	226	<0.001	0.005	0.0311	0.033
15-Apr-08	10	500	425	7.32	423	1074	#N/A	5.2	10.6	539	890	<0.5	2.03	671	0.0046	0.00018	0.0003	0.0127	<0.00005	<0.00000	<0.05	0.0003	264	0.0001	0.0061	0.0195	0.005
22-Apr-08	11	500	430	7.27	428	916	#N/A	4.8	7.6	473	#N/A	#N/A	#N/A	539	0.015	<0.0005	0.0013	0.012	<0.0001	<0.001	<0.05	0.0004	211	<0.001	0.0061	0.0323	0.015
29-Apr-08	12	500	395	7.36	412	861	#N/A	3.5	7.3	440	#N/A	#N/A	#N/A	490	0.009	<0.0005	0.0007	0.012	<0.0001	<0.001	<0.05	0.0004	192	<0.001	0.0065	0.0196	<0.005
6-May-08	13	500	400	7.23	374	936	#N/A	4.5	8.2	516	#N/A	#N/A	#N/A	537	0.005	<0.0005	0.0003	0.016	<0.0001	<0.001	<0.05	0.0005	208	<0.001	0.0088	0.0268	0.012
13-May-08	14	500	470	7.48	355	764	#N/A	4.7	9.3	387	#N/A	#N/A	#N/A	440	0.008	<0.0005	0.0002	0.012	<0.0001	<0.001	<0.05	0.0004	171	<0.001	0.0085	0.026	0.015
20-May-08	15	500	455	7.40	329	606	#N/A	3.8	7.0	348	460	<0.5	2.52	314	0.0022	0.00013	0.0002	0.0126	1E-05	<0.00000	<0.05	0.0003	122	<0.0001	0.0063	0.0197	0.003
27-May-08	16	500	410	7.31	406	495	#N/A	3.9	6.7	259	#N/A	#N/A	#N/A	297	0.004	<0.0005	0.0004	0.014	<0.0001	<0.001	<0.05	0.0003	115	<0.001	0.0068	0.0255	<0.005
3-Jun-08	17	500	485	7.25	431	413	#N/A	4.3	6.8	213	#N/A	#N/A	#N/A	229	0.006	<0.0005	0.0008	0.015	<0.0001	<0.001	<0.05	0.0004	88.5	<0.001	0.0075	0.0311	0.017
10-Jun-08	18	500	445	7.3	398	331	#N/A	4.7	7.0	183	#N/A	#N/A	#N/A	225	0.003	<0.0005	0.0005	0.015	<0.0001	<0.001	<0.05	0.0004	87.1	<0.001	0.0075	0.0287	<0.005
17-Jun-08	19	500	470	7.42	292	489	#N/A	6.4	8.5	320	#N/A	#N/A	#N/A	354	0.004	<0.0005	0.0004	0.026	<0.0001	<0.001	<0.05	0.0006	138	<0.001	0.0112	0.0494	0.011
24-Jun-08	20	500	485	7.41	290	401	#N/A	6	10	260	400	<0.5	2.9	289	0.0048	0.00011	0.0003	0.0265	2E-05	<0.00000	<0.05	0.0005	112	0.0001	0.0119	0.0514	0.007

Date Reporting Units	Cycle No.	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg ug/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	Major Anions	Major Cations	Diff	Diff (%)
8-Feb-08	0	9E-05	0.007	17.4	0.354	<0.05	0.0683	0.0043	<0.01	47.2	0.0041	2.16	<0.0000	12.1	2.81	488	0.0001	0.0004	<0.003	0.0032	<0.001	0.012	<0.0005	31.45	31.86	0.41	0.6%
12-Feb-08	1	0.0006	0.0049	6.01	0.264	<0.01	0.0387	0.0022	0.003	22.8	0.0014	2	:0.00000	2.47	1.61	390	8E-05	9E-05	0.001	0.0022	0.0003	0.0069	<0.0001	26.58	24.14	-2.45	-4.8%
19-Feb-08	2	<0.0002	#N/A	4.23	0.326	#N/A	0.028	0.002	<0.01	17.4	0.0014	1.85	<0.0000	1.17	1.33	334	6E-05	<0.005	<0.005	0.0014	<0.005	0.007	<0.0005	17.26	20.60	3.34	8.8%
26-Feb-08	3	<0.0002	#N/A	3.81	0.501	#N/A	0.033	0.003	<0.01	17.9	0.0039	3	<0.0000	0.73	1.36	380	0.0001	<0.005	<0.005	0.0012	<0.005	0.014	<0.0005	21.92	23.66	1.73	3.8%
4-Mar-08	4	<0.0002	#N/A	3.32	0.516	#N/A	0.039	0.002	<0.01	15.2	0.0055	1.58	<0.0000	0.52	1.15	322	9E-05	<0.005	<0.005	0.0008	<0.005	<0.005	<0.0005	19.62	19.10	-0.53	-1.4%
11-Mar-08	5	1E-05	0.0059	2.48	0.497	<0.01	0.0345	0.0013	<0.002	13.7	0.0036	1.86	:0.00000	0.31	0.932	280	1E-04	2E-05	<0.0005	0.0004	<0.0002	0.0036	<0.0001	16.71	15.44	-1.27	-4.0%
18-Mar-08	6	<0.0002	#N/A	2.3	0.745	#N/A	0.032	0.002	<0.01	15.4	0.0027	1.45	<0.0000	0.22	0.88	271	9E-05	<0.005	<0.005	0.0003	<0.005	0.008	<0.0005	16.58	18.81	2.23	6.3%
25-Mar-08	7	<0.0002	#N/A	2.12	0.74	#N/A	0.028	0.001	<0.01	11.2	0.0021	2.32	<0.0000	0.25	0.733	226	9E-05	<0.005	<0.005	0.0002	<0.005	0.011	<0.0005	12.11	13.94	1.84	7.0%
1-Apr-08	8	<0.0002	#N/A	1.99	0.859	#N/A	0.026	0.002	<0.01	10.1	0.0018	1.63	<0.0000	0.25	0.677	231	8E-05	<0.005	0.013	0.0001	<0.005	0.007	<0.0005	12.58	12.76	0.18	0.7%
8-Apr-08	9	<0.0002	#N/A	2.29	1.07	#N/A	0.022	0.002	<0.01	8.95	0.0015	1.97	<0.0000	0.24	0.61	191	9E-05	<0.005	0.03	<0.0001	<0.005	0.008	<0.0005	12.46	11.71	-0.75	-3.1%
15-Apr-08	10	5E-05	0.0087	3.01	1.54	0.01	0.0234	0.0017	<0.002	10.8	0.0022	2.53	:0.00000	0.19	0.715	211	0.0001	2E-05	<0.0005	4E-05	<0.0002	0.0144	<0.0001	11.44	13.71	2.26	9.0%
22-Apr-08	11	<0.0002	#N/A	3.07	1.52	#N/A	0.019	0.002	<0.01	9.17	0.0017	2.37	<0.0000	0.13	0.564	168	0.0001	<0.005	<0.005	<0.0001	<0.005	0.017	<0.0005	10.01	11.02	1.02	4.8%
29-Apr-08	12	<0.0002	#N/A	2.99	1.58	#N/A	0.016	0.002	<0.01	8.17	0.0015	2.19	<0.0000	0.09	0.495	157	8E-05	<0.005	<0.005	<0.0001	<0.005	0.014	<0.0005	9.31	10.04	0.73	3.8%
6-May-08	13	<0.0002	#N/A	4.1	2.06	#N/A	0.022	0.002	<0.01	9.2	0.0019	2.63	<0.0000	0.52	0.609	188	0.0001	<0.005	<0.005	<0.0001	<0.005	0.018	<0.0005	10.91	10.97	0.06	0.3%
13-May-08	14	<0.0002	#N/A	3.06	1.77	#N/A	0.017	0.002	<0.01	7.6	0.0014	2.47	<0.0000	0.14	0.454	145	9E-05	<0.005	<0.005	<0.0001	<0.005	0.017	<0.0005	8.25	8.99	0.74	4.3%
20-May-08	15	2E-05	0.0069	2.37	1.35	0.01	0.0167	0.0017	<0.002	6.29	0.0013	2.2	:0.00000	0.15	0.353	101	8E-05	3E-05	<0.0005	2E-05	<0.0002	0.0117	<0.0001	7.39	6.45	-0.94	-6.8%
27-May-08	16	<0.0002	#N/A	2.52	1.38	#N/A	0.014	0.002	<0.01	6.28	0.0013	2.52	<0.0000	0.1	0.308	97	8E-05	<0.005	<0.005	<0.0001	<0.005	0.014	<0.0005	5.53	6.11	0.58	5.0%
3-Jun-08	17	<0.0002	#N/A	1.96	1.33	#N/A	0.014	0.002	<0.01	5.4	0.0012	2.21	<0.0000	0.12	0.283	75	8E-05	<0.005	<0.005	<0.0001	<0.005	0.018	<0.0005	4.57	4.72	0.15	1.6%
10-Jun-08	18	<0.0002	#N/A	1.87	1.26	#N/A	0.013	0.002	<0.01	5.15	0.0011	2.46	<0.0000	0.1	0.25	71	7E-05	<0.005	<0.005	<0.0001	<0.005	0.018	<0.0005	3.95	4.64	0.68	8.0%
17-Jun-08	19	<0.0002	#N/A	2.24	1.78	#N/A	0.013	0.003	<0.01	6.36	0.0012	2.81	<0.0000	0.1	0.374	113	9E-05	<0.005	<0.005	<0.0001	<0.005	0.028	<0.0005	6.84	7.24	0.40	2.8%
24-Jun-08	20	4E-05	0.0073	2.34	1.6	<0.01	0.0124	0.0031	0.003	6.02	0.0014	3.11	:0.00000	0.13	0.31	103	9E-05	5E-05	0.0007	1E-05	<0.0002	0.0287	<0.0001	5.61	5.94	0.33	2.8%