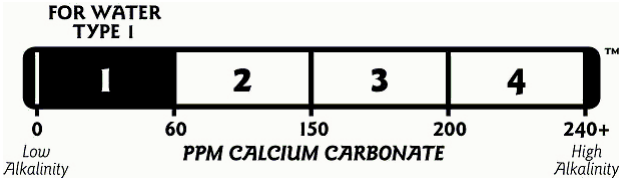
SPECIALIZING IN ANALYSIS OF: SOILLESS MEDIA, TISSUE, WATER, FERTILIZER SOLUTIONS
300 Speedway Circle Suite 2, Lincoln, NE 68502 - Phone: 1-877- HORT-LAB (1-877-467-8522) - FAX: 402-476-0302
www.everris.us.com

SOLUTION ANALYSIS



ACCT#	61		
NAME	Custom Hydro	DATE RECEIVED	21-Dec-2016
ADDRESS	customhydronutrients.com	DATE COMPLETE	27-Dec-2016
	customhydronutrients@gmail.com	TURN AROUND	6 Days
CITY/STATE/ZIP		LAB I.D.	
PHONE		SAMPLE I.D.	OSA28
FAX			
E-MAIL			

Date Sampled:	Fertilizer Solution	Fertilizer Solution:	
This Sample Is:		Concentration:	
Source of Water:		Injector/Ratio:	
Water Treated:			
Concerns/Problems:			

TEST			RESULTS	TEST			RESULTS
Soluble Salts		mmhos/cm	235.90	Copper	Cu	ppm	2.54
pH			1.0	Zinc	Zn	ppm	1.15
Alkalinity		ppm	0.20	Molybdenum	Mo	ppm	349.13
Calcium	Ca	ppm	155.60	Aluminum	Al	ppm	156.91
Magnesium	Mg	ppm	53.81	Nitrate	NO_3-N	ppm	0.57
Sodium	Na	ppm	888.81	Ammonium	NH_4-N	ppm	138.00
Chloride	Cl	ppm	32900.00	Total Nitrogen	N	ppm	138.57
Boron	B	ppm	484.47	Phosphorus	P	ppm	10.50
Fluoride	F	ppm	0.01	Potassium	K	ppm	6777.67
Iron	Fe	ppm	14.97				
Manganese	Mn	ppm	0.01				
Sulfur	S	ppm	18.57				

Questions about this report? Call for technical assistance
at 1-877-HORT-LAB (1-877-467-8522)
For more information on matching your fertilizer program to your specific water quality, access the
Peters® ABC Selection System™ from Everris at <http://everris.us.com/peters-abc-selection-system>.

TABLE 1. ALKALINITY GUIDELINES FOR EVERRIS LAB ANALYSIS. POT DIAMETER/SIZE IMPACTS THE EFFECT OF ALKALINITY.

INTENDED USE	NORMAL RANGE		LEVEL OF CONCERN U	
	ppm-mg $CaCO_3$ /L	Milliequivalents $CaCO_3$ V	ppm=mg$CaCO_3$ /L	Milliequivalents $CaCO_3$
Plugs	60 to 100	1.2 to 2.0	<40. > 120	<0.8. > 2.4
Small pots/shallow flats	80 to 120	1.6 to 2.4	<40. > 140	<0.8. > 2.8
4" to 5" posts/deep flats	100 to 140	2.0 to 2.8	<40. > 160	<0.8. > 3.2
Pots: 6" or more/long term crops	120 to 180	1.6 to 3.6	<60. > 200	<1.2. > 4.0

U Highest level a grower can manage depends on plant type grown, media type, potential acidity of feed program and watering practices. Levels listed in this table are guidelines only!

V Milliequivalents = ppm total alkalinity expressed as milligrams Calcium Carbonate per liter divided by 50.

LOW ALKALINITY: Use a low acidifying or basifying feed program, provide for adequate calcium and magnesium and assure that growing medium lime rate is adequate. **Call 1-877-HORT-LAB (1-877-467-8522) for further advice.**

HIGH ALKALINITY: Use an acidifying feed program and/or add mineral acids to irrigation water such as phosphoric, sulfuric acids. Exercise appropriate precautions when handling concentrated acids and use acid-safe injectors.
Call 1-877-HORT-LAB (1-877-467-8522) for further advice.

TABLE 2. GENERAL WATER QUALITY GUIDELINES FOR GROWING IN SOILLESS GROWING MEDIA.

PARAMETER	NORMAL RANGE	LOW	HIGH
	(Parts per million except where noted)		
Soluble Salts (mmhos/cm)	0.3 to 1.0	< 0.2	> 1.3
MAJOR NUTRIENTS w			
Nitrate Nitrogen (NO_3-N)	----------	----------	> 10
Ammonium Nitrogen (NH_4-N)	----------	----------	> 10
Phosphorus (P)	----------	----------	> 10
Potassium (K)	----------	----------	> 10
Calcium (Ca)	40 to 75	< 25	> 100
Magnesium (Mg)	30 to 50	< 15	> 50
Sulfur (S)	10 to 80	< 10	> 80
TRACE NUTRIENTS y			
Manganese (Mn)	----------	----------	> 1.50
Iron (Fe)	----------	----------	> 2.00
Copper (Cu)	----------	----------	> 0.20
Boron (B)	----------	----------	> 0.50 z
Zinc (Zn)	----------	----------	> 0.40
Molybdenum (Mo)	----------	----------	> 0.20
OTHER ELEMENTS			
Sodium (Na)	----------	----------	> 50
Chlorides (Cl)	----------	----------	> 70
Fluorides (F)	----------	----------	> 1.0
Aluminum (Al)	----------	----------	> 1.0

w N, P and K levels usually low. Levels greater than 10 to 20 ppm may indicate nutrient runoff into water source.

x Sulfur reported as elemental Sulfur. To calculate sulfur as the sulfate ion, the form in which most sulfur is likely to be present, multiply by 3. Small amounts of sulfur can be added through the addition of epsom salts, magnesium sulfate, to non-calcium fertilizer formulations. One ounce per 100 gallons of water will deliver 7.5 ppm Mg and 30 ppm SO_4.

y Concern with trace nutrient levels that are two times the level found in a PETERS PEAT-LITE fertilizer solution of 200 ppm N.

z With Boron-sensitive crops (like poinsettia), 0.25 ppm may be considered high.

Submitted By:	6570761
Custom Hydro	

Submitted For:
CUSTOM HYDRO

Date Received	Date Reported		Laboratory Sample #'
21-Dec-2016	27-Dec-2016		

REPORT OF ANALYTICAL RESULTS

Client Sample Identification	Analysis	Result
OSA28	Water Silicon	3,591.68 ppm