

## **Soil Testing Guidance**

It is important to identify roadside soil characteristics of a site to determine its erosion potential, infiltration qualities, and ability to establish vegetative cover.

During the planning phase of a project, soil testing for horticultural purposes should be considered in areas to receive highway planting, erosion control planting (seeding), and vegetative cover for storm water Best Management Practices (BMP). When it is determined by the Landscape Architect that existing soils may not adequately support healthy plant growth, the cost estimate for the project shall include funding for a horticultural soils test during the scoping process. The soils test shall be performed as early as feasible in the project so that recommendations for soil amendments and plant selection can be incorporated into the design to assure sustainability of the plants during and after construction.

Field inspection of the project site is essential. Visual inspections of areas to be planted or seeded can provide a good indication as to the possible condition of the soil and provide a clue as to whether the soil can support healthy vegetation. The lack of vegetation or existing vegetation that appears unhealthy and stunted would indicate that establishing vegetation may be problematic. The purpose of testing the soil is to identify soil structure and composition, the soil's pH (acidity or alkalinity) and reveal nutrient deficiencies that could be corrected with appropriate soil amendments. It will also provide a basis for determining appropriate plant species for the project.

On roadway construction projects it is not always known what the soil characteristics will be on the final grades. The source of imported borrow is not always known. The designer must work with the Project Engineer to anticipate what soil material will be applied and where this material may be coming from. The material remaining in areas to be excavated may be deficient to sustain plant life if the depth of the excavation removes the growing medium.

### ***When to Perform Soil Testing***

Determination on the need for soils testing should be made during the project initiation phase of project development. Early identification of the need to perform soil testing will assure that appropriate levels of funding resources will be available for treating deficient soil. Early soil testing will identify the need to incorporate compost and other amendments or treatments required to sustain vegetation. The soils test should be performed as early as is feasible in the project, preferably during the PID development, but may also occur during PA&ED if unanticipated planting or seeding areas are identified in the later phase. [comment-often mitigation planting locations are determined during the ED that might not be anticipated earlier]

On roadway construction projects requiring erosion control, it may be critical to have a complete and accurate soils test. The challenge is to determine what the soil at the finished grades will consist of. If the source of fill material is known and if the viability of this material to sustain vegetation is suspect, soil testing should be performed on this fill material at the source, prior to placement.

Soil testing for the physical and mechanical characteristics can be done with preconstruction borings in areas where minimal grading disturbance is anticipated or in areas where excavation is to occur. Note that borings performed prior to road construction for the purposes of determining structural integrity are usually done after and rarely before PA&ED under the activity code 185 or 240 of the Work Breakdown Schedule (WBS). Collaboration with the Design Engineer is necessary to coordinate findings and to scheduled borings. Work with the requesting unit and field boring personnel to develop the boring plan to assess and insure that specific information is obtained.

If soils information cannot be obtained for the project site, then soils information from a reference site located in the vicinity may be evaluated. To be valid, the reference site must have characteristics similar to the project site such as soil characteristics, slope aspect (north-facing, etc.) topography (cut or fill slopes), microclimate, geology, and similar existing vegetation or the lack of vegetation or the reference site contains the same or similar fill material.

### ***Resources for Soil Testing***

Funds should be identified during the project initiation phase once the need for soil testing is determined to be necessary.

On roadway construction projects, information on soils can be requested as part of the geotechnical investigation or test borings. Specific information needs to be detailed to obtain information desired. Coordination with the Project Engineer would determine when this requested information should be submitted.

A contract is required for services with an estimate fee exceeding \$5,000 (Form 360). Service contracts can be written to accommodate soil testing where the cost will be charged to the project. The need here is to coordinate with the Accounting unit. Service Contracts require three (3) bids from qualified vendors.

Service agreements can be used for soil testing estimated below \$5,000. Charges can be made to the project or any fund which is budgeted and which is available for the soil testing. Standard form ADM-3015 is to be used (ADM-3015 and instructions are attached). Service agreements require one qualified vendor.

According to Chapter 1, Section 1.0, General Information, of the CAL-Card Handbook, "The CAL-Card is the preferred method of payment for the Department and should be used in place of the Purchasing Authority Purchase Order (Std. 65) and the Service Agreement Under \$5,000 (ADM 3015), as appropriate.

The CAL-Card Handbook contains information pertaining to guide lines, limitations, requirements, and other relevant information pertaining to acquiring and the use of the CAL-Card. An electronic version of the CAL-Card Handbook can be downloaded (and printed if necessary) from the Division of Procurement and Contracts (DPAC) Intranet web site at <http://admin.dot.ca.gov/pc>.

## ***Collection of Soil Samples***

A representative sample of soil shall consist of an approximate composite one-quart volume consisting of four one cup samples from various locations within the area under investigation. The sample shall be placed into a bag or any container as per lab requirements. Equipment for collecting the sample may be a spade, shovel, auger, or soil sampling tube.

The quantity of one sample must be sufficient for the analysis selected. The lab which will do the testing will dictate the exact amount of soil required for the tests specified.

Collected sub samples should represent the root zone of the proposed plant material.

For reference, each bag should be labeled with the location of the area of investigation where the sample is obtained.

## ***Typical Soil Testing Lab Report***

When analyzing soils information for viability for plants and vegetative BMPs as well as biofiltration, the soils test should report at a minimum, the following:

- USDA-NRCS particle size distribution (soil texture) – ASTM D6913-04e1
- Bulk density
- Organic matter percentage – ASTM D2974-07a
- Infiltration rate –ASTM D3385-03 (should be field performed)
- Water field capacity
- pH
- Salinity
- Sodium (Na)
- Boron (B)
- Nitrogen (N)
- Phosphorus (P)
- Potassium (K)
- Recommended amendments

## ***Soil Tests Findings and Identifying Corrective Action***

In addition to the information listed above in the Contents of the Soil Testing Lab Report, recommendations by the lab on how to amend the soil to best sustain the vegetation specified should be included as part of the report. Most labs include recommendations, others may charge a small fee. When choosing a vendor, be sure that the vendor supplies recommendations as part of the report. When requesting the soils report, it will be necessary to state the type of vegetation that will be planted.

To assure appropriate level of funding based on the recommendations from the soils report to accommodate amending the soils prior to planting, soil testing needs to be completed prior to

PA&ED. If soil testing cannot be accomplished prior to PA&ED (as with the case of some road construction projects), any treatments/amendments to the soil would have to be anticipated based on information available from all the functional units involved.

***Attachments:***

- a. Vendor List
- b. Sample Vendor Services
- c. Sample Service Request
- d. Sample Analysis/Recommendations

## VENDOR LIST

**ABC Organics \*\***

PO Box 967  
Camarillo, CA 93011  
(805) 675-8747

**A & L Western Agricultural  
Laboratories**

1311 Woodland Ave. #1  
Modesto, CA 95351  
(209) 529-4080

**Clarkson Laboratory & Supply, Inc.**

350 Trousdale Drive  
Chula Vista, CA 91910  
(619) 298-6131

**Dellavalle Laboratory, Inc.**

1910 W. McKinley Avenue  
Fresno, CA  
(559) 233-6129

**Environmental Engineering  
Laboratory**

3538 Hancock Street  
San Diego, CA 93110  
(619) 298-6131

**Fallbrook Ag-Laboratory, Inc.**

P.O. Box 1269  
455 East Alvarado Street  
Fallbrook, CA 92088  
(760) 728-4828

**Mission Resource Conservation  
District**

P.O. Box 1777  
Fallbrook, CA 92025  
Fallbrook, CA 92025  
(760) 745-2061

**Peaceful Valley Farm Supply**

PO Box 2209  
Grass Valley, CA 95945  
(888)784-1722

**Soil and Plant Lab**

352 Mathew Street  
Santa Clara, CA 95050  
(408) 727-0330

**Soil and Plant Laboratory, Inc.**

P.O. Box 6566  
Orange, CA 92863  
(714) 282-8777

**Soil Control Lab, Inc.**

42 Hangar Way  
Watsonville, CA 95076  
(831) 724-5422

**Sunland Analytical Lab, Inc.**

11353 Pyrites Way, Suite 4  
Rancho Cordova, CA 95670  
(916) 852-8557

**Timberleaf Soil Testing**

39648 Old Spring Road  
Murrieta, CA 92563  
(951) 677-7510

**Wallace Laboratories**

365 Coral Circle  
El Segundo, CA 90245  
(310) 615-0116

**Wes-Tech Environmental Industrial  
Hygiene Services \*\***

5960 South Land Park Dr., #367  
Sacramento, CA 95822  
(916) 392-2006.



**QUALITY ANALYTICAL SERVICES FOR AGRICULTURE AND INDUSTRY**

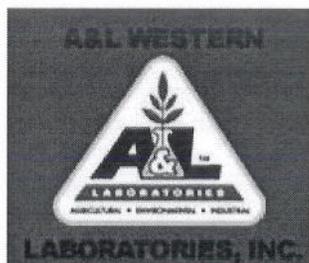
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# Soil Analysis

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- Water & Wastewater Fees
- Metals Analysis Fees
- Pesticide Analysis Fees
- Microbiology Fees
- Soil, Plant, & Water Pathology Fees
- Fertilizer & Amendment Fees
- Organic Fertilizer Fees
- Feed Testing Fees
- Food Testing Fees
- Custom Lab Services

**SOIL TEST PACKAGES**

- S1B** Organic Matter, Estimated Nitrogen Release, Phosphorus (Weak Bray and Sodium Bicarbonate-P), Extractable Cations (Potassium, Magnesium, Calcium, Sodium), Hydrogen, Sulfate-S, pH, Cation Exchange Capacity and percent cation saturation (computed)
- S1BN** Same as S1B with residual nitrogen as Nitrate-Nitrogen
- S2** S1B, plus Soluble Salts and Excess Lime
- S2N** S2, plus Nitrate-Nitrogen
- S3** Zinc, Manganese, Iron, Copper and Boron
- S3C** COMPLETE Analysis (S2N plus S3)
- S4** Zinc, Manganese, Iron and Copper
- S6** Zinc, Manganese and Boron

**NOTE:** Strong Bray Phosphorus may be substituted for Sodium Bicarbonate Phosphorus in S1B package. Ask for package S1A.  
See microbiology section for information on nematode analysis.

**SOIL SALINITY PACKAGE**

- S10** Using a saturated soil extract. Saturation Percentage, Soluble Salts, Sodium, Calcium, Magnesium, Chloride, Boron, Carbonate, Bicarbonate, pH, SAR and ESP
- S10C** Combined Package (S3C plus S10)

**FEE (\$US)**

**RECOMMENDATIONS  
WITH                  WITHOUT**

	WITH	WITHOUT
S1B	13.00	11.00
S1BN	16.00	14.00
S2	17.00	15.00
S2N	20.00	18.00
S3	17.00	15.00
S3C	32.00	30.00
S4	12.00	10.00
S6	17.00	15.00

S10	45.00
S10C	60.00

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**GRAPHICAL SOIL ANALYSIS REPORT**

Available for all Soil Test Packages – one sample per page format Add \$1.00 per sample

**ELECTRONIC REPORTING FORMAT**

Available for all Soil Test Packages. Hard copy excluded.  
Choose .pdf or .dbf format No Additional Charge

**NURSERY AND GREENHOUSE MEDIA PACKAGE**

<b>S7</b>	Using the Saturated Media Extract (DTPA Modification) Nitrate-Nitrogen, Ammonium Nitrogen, Phosphorus, pH, Potassium, Calcium, Magnesium, Sodium and Electrical Conductivity	29.00
<b>S7A</b>	S7 plus Sulfate-Sulfur, Zinc, Manganese, Iron, Copper and Boron	40.00

**SOIL PHYSICAL PROPERTIES**

	<b>FEE (\$US)</b>
Bulk Density (disturbed soil)	10.00
Infiltration Rate (1 gallon required)	25.00
Sand Classification (USGA size limits)	35.00
Saturation Percentage	12.00
Soil Pore Space/Air Space Analysis %air, %water, %porosity (1 gallon required)	35.00
Soil Texture (% Sand, % Silt & % Clay)	15.00
1/3 plus 15 BAR limits (by pressure membrane apparatus)	35.00
Each additional BAR	25.00
Soil Moisture	8.00
Organic Matter (loss on ignition)	8.00
Estimated Water Holding Capacity	15.00

**SOIL RECLAMATION ANALYSIS**

Alkaline Earth Carbonates (Percent Limestone)	17.00
Gypsum Requirement	25.00
Lime Requirement (SMP Buffer pH)	9.00

Sodium Adsorption Ratio & Exchangeable Sodium Percentage (SAR and ESP)	25.00
<b>INDIVIDUAL ANALYSIS OF EXTRACTABLE SOIL NUTRIENTS (with any soil test package)</b>	
Boron (hot water or saturated paste)	7.00
Phosphorus (all forms)	5.00
Sulfur, Sulfate (SO <sub>4</sub> -S)	5.00
Zinc, Manganese, Iron, Copper (DTPA extraction per element)	5.00
Additional preparation charge for individual analysis without basic soil test package	6.00
<b>OTHER CHEMICAL SOIL ANALYSIS</b>	
Aluminum (extractable, 1N KCl)	12.00
Cation Exchange Capacity (Ammonium saturation)	30.00
Extractable Cations (Ca, Mg, K, Na, by ammonium acetate extraction)	9.00
Fluoride (extractable)	25.00
Humic Acid (A&L Western Laboratories Method)	20.00
Microbial Activity (Dehydrogenase Activity)	40.00
Nitrogen, Ammonia	12.00
Nitrogen, Nitrate or Nitrite	12.00
Nitrogen, Organic (TKN - Ammoniacal)	32.00
Chloride	12.00
Nitrogen, TKN (organic and ammoniacal)	20.00
Nitrogen, Total TKN + NO <sub>3</sub> -N	32.00
Potassium Supply Rate	25.00
Total Organic Carbon (Walkey-Black method)	30.00
pH	11.00
Specific Conductance (ECe)	12.00
C:N Ratio w/package	10.00
Elemental Sulfur	30.00
<b>COMPOSITE SAMPLE PREPARATION</b>	
Sample preparation charge for compositing samples	6.00



# SOIL SAMPLE INFORMATION SHEET

## A & L WESTERN AGRICULTURAL LABORATORIES, INC.

LAB  
USE  
ONLY

**MODESTO OFFICE**  
1311 WOODLAND AVENUE, SUITE #1 • MODESTO, CA 95351 • (209) 529-4080 FAX (209) 529-4736

**PORTLAND OFFICE**  
10220 S.W. NIMBUS AVE., BLDG K-9 • PORTLAND, OR 97223 • (503) 968-9225 FAX (503) 598-7702

CUSTOMER

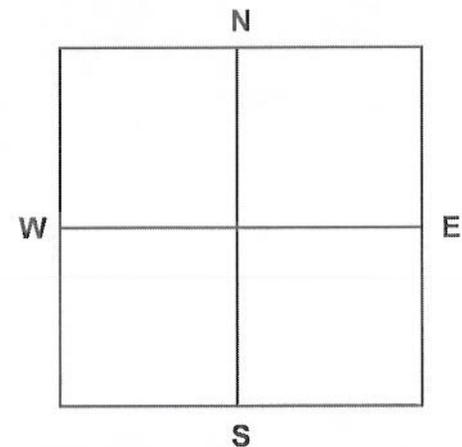
PHONE NO: \_\_\_\_\_

GROWER

PHONE NO: \_\_\_\_\_

SUBMITTED BY

PHONE NO: \_\_\_\_\_



Graphics Report (\$1.00 per sample)    
  Fax Report (\_\_\_\_\_) \_\_\_\_\_    
  Email Report (email address required) \_\_\_\_\_

SAMPLE ID (6 CHARACTERS)	TEST PACKAGES										CHECK BOX IF RECOMMENDATIONS REQUIRED <input type="checkbox"/>			LBS PER ACRE <input type="checkbox"/>		LBS PER 1,000 SQ FT <input type="checkbox"/>	
	S1B	S1BN	S2	S2N	S3C	S10C	TEXTURE	NEMATODE	OTHER ANALYSES	CROP OR PLANT TYPE	PREVIOUS CROP OR PLANT TYPE	PLANTING DATES	SAMPLE DEPTH	AMENDMENTS APPLIED	METHOD OF IRRIGATION		
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**EXPLANATION OF TESTS (SUBMIT ABOUT TWO CUPS OF SOIL PER SAMPLE)**

S1B: BASIC SOIL ANALYSIS. Organic matter estimated nitrogen release, phosphorus (weak Bray and sodium bicarbonate-P), potassium, magnesium, calcium, sodium, sulfate-sulfur, soil pH, buffer pH, C.E.C. and percent cation saturation (computed).

S1BN: BASIC SOIL ANALYSIS plus nitrate-nitrogen.

S2: BASIC SOIL ANALYSIS plus soluble salts and excess lime.

S2N: BASIC SOIL ANALYSIS plus soluble salts, excess lime, and nitrate-nitrogen.

S3C: COMPLETE ANALYSIS. BASIC SOIL ANALYSIS (plus soluble salts, excess lime, nitrate-nitrogen, Zn, Mn, Fe, Cu, and B).

S10C: COMPLETE ANALYSIS plus saturation percentage, SAR, ESP, carbonate, bicarbonate, chloride, and saturated paste boron.

*NOTE: Strong Bray Phosphorus may be substituted for Sodium Bicarbonate Phosphorus in S1B package. Ask for package S1A*

NO<sub>3</sub>-N = Nitrate - N  
 SO<sub>4</sub>-S = Sulfate - S  
 Zn = Zinc  
 Mn = Manganese  
 Fe = Iron  
 Cu = Copper  
 B = Boron  
 Mo = Molybdenum  
 Cl = Chloride

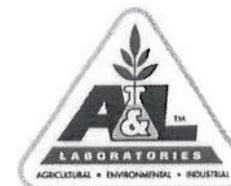
PRINT NAME OF SAMPLER \_\_\_\_\_

SIGNATURE OF SAMPLER \_\_\_\_\_

DATE SAMPLES SUBMITTED \_\_\_\_\_

# A & L WESTERN AGRICULTURAL LABORATORIES, INC.

1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



Report No: 08-353-030

Account No: 99999-D

Send to: CALTRANS-LANDSCAPE ARCHITECTURE  
PO BOX 942874  
SACRAMENTO, CA 94274

Date Received: 12/18/2008

Date Reported: 12/23/2008

## SOIL ANALYSIS REPORT

<b>Analyte:</b>		<b>Bulk Density</b>
<b>Detection Limit:</b>		<b>0.01 g/cc</b>
<b>Method Code:</b>		<b>MSA Part 1 pp. 374-379 1983</b>
<b>Lab Number:</b>	<b>Sample ID:</b>	<b>g/cc</b>
53204	SUZY	0.97

A & L Western Agricultural Laboratories

**Mike Buttress, CPAg**  
**Agronomist**

# A & L WESTERN AGRICULTURAL LABORATORIES

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REPORT NUMBER: 08-353-070

CLIENT: 99999

SUBMITTED BY:

SEND TO: CALTRANS LANDSCAPE ARCHITECTURE  
PO BOX 942874  
SACRAMENTO, CA 94274-

GROWER:

DATE OF REPORT: 12/22/08

## SOIL PHYSICAL CHARACTERISTICS

PAGE: 1

Sample ID	Lab Number	% Sand	% Silt	% Clay	Soil Texture	Moisture @ 1/3 Bar	Moisture @ 15 Bar	Available Water %
SUZ4	53204	57	26	16	SANDY LOAM			

NOTES:

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Mike Buttress, CPAg  
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REPORT NUMBER: 08-353-030

CLIENT: 9999

SEND TO: CALTRANS-LANDSCAPE ARCHITECTURE  
PO BOX 942874  
SACRAMENTO, CA 94274

DATE OF REPORT: 12/23/08

## SOIL ANALYSIS REPORT

PAGE: 1

Sample ID	Lab Number		Estimated Water Holding Capacity (%)	Estimated Available Water (inches/foot)				
SUZY	53204		63.4	1.9				

NOTES: Estimated water holding capacity multiplied by 0.03 approximates the available water in inches per foot depth of soil.

Estimated available water capacity is that held between field capacity and wilting point in inches per foot depth of soil.

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Mike Buttress, CPAg

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REPORT NUMBER: 08-353-030

CLIENT: 99999

SUBMITTED BY: DON CHIN

SEND TO: CALTRANS-LANDSCAPE ARCHITECTURE  
PO BOX 942874  
SACRAMENTO, CA 94274-

GROWER:

DATE OF REPORT: 12/22/08

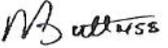
## SOIL SALINITY ANALYSIS REPORT

PAGE: 1

Sample ID	Lab Number	SAR	ESP	Na meq/L	Ca meq/L	Mg meq/L	pH	CO <sub>3</sub> meq/L	HCO <sub>3</sub> meq/L	E.C. dS/m	Cl meq/L	B ppm	Saturation %
SUZ4	53204	0.8	< 0.1	1.3	3.3	2.0	6.7	0.0	1.9	0.3	0.5	0.3	56.2

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REPORT NUMBER: 08-353-030

CLIENT NO: 9999-D

SEND TO: CALTRANS-LANDSCAPE ARCHITECTURE  
PO BOX 942874  
SACRAMENTO, CA 94274-

SUBMITTED BY: DON CHIN

GROWER:

DATE OF REPORT: 12/22/08

## SOIL ANALYSIS REPORT

PAGE: 1

SAMPLE ID	LAB NUMBER	Organic Matter		Phosphorus		Potassium	Magnesium	Calcium	Sodium	pH		Hydrogen	Cation Exchange Capacity	PERCENT CATION SATURATION (COMPUTED)				
		*	**	P1 (Weak Bray)	NaHCO <sub>3</sub> -P (Olsen Method)	K	Mg	Ca	Na	Soil pH	Buffer Index	H	C.E.C.	K	Mg	Ca	H	Na
		% Rating	ENR lbs/A	**** * ppm	**** * ppm	**** * ppm	*** * ppm	*** * ppm	*** * ppm	*** * ppm			meq/100g	meq/100g	%	%	%	%
SUZ4	53204	4.2H	114	61VH	35VH	98L	451VH	1668M	60L	6.7		0.6	13.1	1.9	28.2	63.4	4.5	2.0

SAMPLE NUMBER	Nitrogen	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Excess Lime	Soluble Salts	Chloride	PARTICLE SIZE ANALYSIS			
	NO <sub>3</sub> -N ppm	SO <sub>4</sub> -S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Rating	mmhos/cm	Cl ppm	SAND %	SILT %	CLAY %	SOIL TEXTURE
SUZ4	14M	7L	10.7VH	3M	35VH	1.4H	1.1M	L	0.3L					

\* CODE TO RATING: VERY LOW (VL), LOW (L), MEDIUM (M), HIGH (H), AND VERY HIGH (VH).  
 \*\* ENR - ESTIMATED NITROGEN RELEASE  
 \*\*\* MULTIPLY THE RESULTS IN ppm BY 2 TO CONVERT TO LBS. PER ACRE OF THE ELEMENTAL FORM  
 \*\*\*\* MULTIPLY THE RESULTS IN ppm BY 4.6 TO CONVERT TO LBS. PER ACRE P<sub>2</sub>O<sub>5</sub>  
 \*\*\*\*\* MULTIPLY THE RESULTS IN ppm BY 2.4 TO CONVERT TO LBS. PER ACRE K<sub>2</sub>O  
 MOST SOILS WEIGH TWO (2) MILLION POUNDS (DRY WEIGHT) FOR AN ACRE OF SOIL 6-2/3 INCHES DEEP

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

*MB*  
Mike Buttress, CPA  
A & L WESTERN LABORATORIES, INC.

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REPORT NUMBER: 08-353-030

CLIENT: 9999-D

SUBMITTED BY: DON CHIN

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PO BOX 942874  
SACRAMENTO, CA 94274-

GROWER:

DATE OF REPORT: 12/22/08

## SOIL FERTILITY GUIDELINES

RATE: /1000 sq

PAGE: 1

Sample ID	Lab Number	Crop	SOIL AMENDMENTS				Nitrogen N	Phosphate P <sub>2</sub> O <sub>5</sub>	Potash K <sub>2</sub> O	Magnesium Mg	Sulfur SO <sub>4</sub> -S	Zinc Zn	Manganese Mn	Iron Fe	Copper Cu	Boron B
			Dolomite	Lime	Gypsum	Elemental Sulfur										
SUZ4	53204	ORNAMENTALS					1.0		4.5		0.6					

**MAGNESIUM:** If base saturation exceeds 25% one may encounter drainage problems and potassium uptake may be hindered. Extra calcium may provide some benefit, but source should depend on soil pH.

**MICRONUTRIENTS:** Where levels appear to be high, avoid any further applications for the time being. Very high (VH) levels may not necessarily be toxic, but avoid. Maintain correct soil pH.

**CHLORIDE:** Levels appear safe; at least AT the depth of sampling. Levels may be higher at lower depths. Consider deeper sampling or a tissue analysis if still a concern.

**HIGH levels of organic matter** should have a beneficial effect on growth and "soil" pH may not be as critical. However, watch carefully as amendments and extra nitrogen may still be necessary.

**NOTES:**

C  
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Mike Buttress, CPAg

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 Visit our Website at [www.al-labs-west.com](http://www.al-labs-west.com)

**INVOICE**

**116651**

Customer	Invoice Date	Invoice Amount
99999	01/09/09	85.00
Payment OVERDUE on		Amount Enclosed
02/09/09		
Please remit to the address on left.		

**Bill To:**

**CALTRANS LANDSCAPE ARCHITECTURE**  
**PO BOX 942874**  
**SACRAMENTO, CA 94274-**

To ensure proper credit, please return the upper portion with your remittance.

**A&L Western Agricultural Labs. Inc.**

Date	Customer	Invoice	Terms	This invoice becomes OVERDUE on	Your Billing Cycle			
01/09/09	99999	116651	NET-30 Days	02/09/09	DAILY			
Report #	Grower or Submitted By	Item	Qty	Description	Tax	Price	Amount	
08-353-030		S10C	1	COMBINATION FERTILITY/SALINITY PKG.	N	60.00	60.00	
08-353-030		S11	1	BULK DENSITY (DISTURBED SOIL)	N	10.00	10.00	
08-353-030		MISC	1	MISCELLANEOUS	N	0.00	0.00	
08-353-070		S15	1	SOIL TEXTURE (% SAND SILT CLAY)	N	15.00	15.00	
<b>Total Paid</b>					<b>0.00</b>	<b>Subtotal</b>		<b>85.00</b>
<b>Balance Due</b>					<b>85.00</b>	<b>Invoice Total</b>		<b>85.00</b>

Interest will be charged on overdue balances at the maximum rate allowable by law. Payable in the county of issue.  
 For questions about billing, please contact our accounting department at 209/529-4080 Ext. 15.  
 This invoice reflects all applicable discounts.