

LAB TESTING

gINT gives you unparalleled power and flexibility for evaluating and reporting lab testing data. gINT performs calculations for 14 different lab tests—all you need to do is enter the raw data. With gINT you can quickly and easily integrate your lab testing results with the rest of your subsurface data.

The screenshot shows the gINT software interface with a 'Lab Testing' group selected. It displays a table for sieve analysis data entry and a separate table for sieve readings.

Depth [m]	Wt Total Spec	Wt Passing Split Sieve	Wt Fines Tested	Size Split Sieve [mm]	Weighing Method	Wt Sieving Tare Coarse	Wt Sieving Tare Fine	Water Content Coarse Wet Wt+Tare	Water Content Coarse Dry Wt+Tare	Water Content Coarse Wt Tare
0.3	100	85			I		5			
0.5										
1.5	129	90.3			I		0	129	100	0
3	128.3	10.2			I		20.8			
4.5	182.1	158.5			I		31.8			
8.7	138.1	125.7			I		15.8			

Sieve Size [mm]	Soil + Tare	Percent Finer
4.75	20.8	100
2.36	33.6	90.02238
1.18	46.5	69.9922
0.6	52.9	44.97272
0.3	46.5	24.94154
0.15	33.6	14.96493
0.075	29.8	7.950117

gINT sieve analysis data entry

gINT STANDARD LAB TESTS

- Atterberg Limits (Liquid and Plastic Limits)
- Sieve Analysis
- Moisture Content
- Density
- Hydrometer Analysis
- Fine Specific Gravity
- Compaction (Proctor)
- Unconfined Compression
- Consolidation
- Direct Shear
- Falling Head Permeability
- California Bearing Ratio (CBR) *
- Concrete Testing *

* available on Web site



gINT Software
123 Main Street
Someplace, SOMEWHERE
Telephone: 012 345 6789
Fax: 012 345 6799

MOISTURE-DENSITY RELATIONSHIP

CLIENT ABC Corporation PROJECT NAME gINT Example

PROJECT NUMBER ABC-12345 PROJECT LOCATION Somehere, World

Source of Material LAB-1 0.30

Description of Material Borrow source

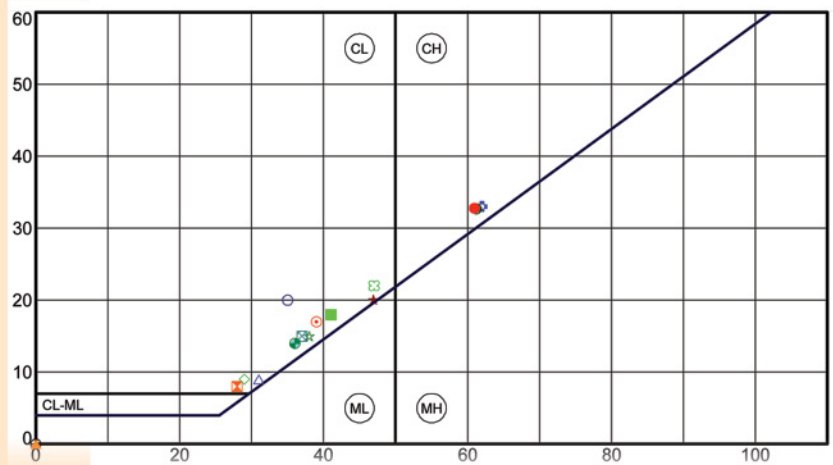
Test Method ASTM D1557 Method A

Compaction Test

Atterberg Limits

(Liquid and Plastic Limits)

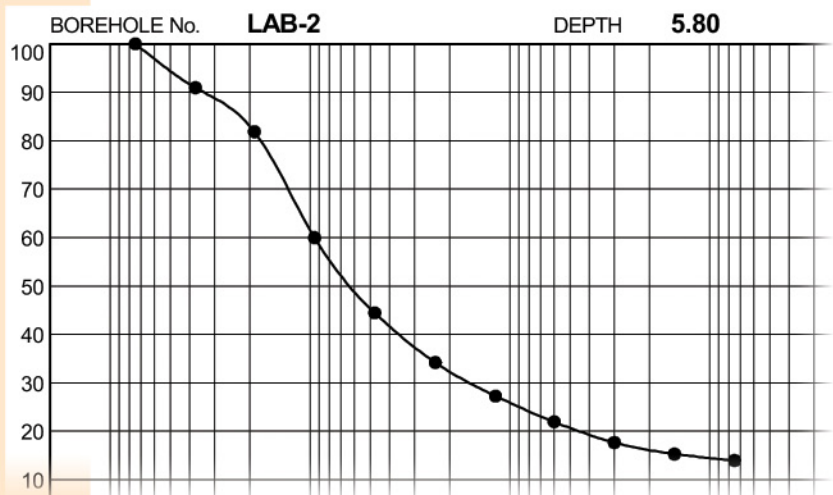
Because you can modify any test report in gINT, this is just one example of a report for Atterberg Limits. gINT can also automatically generate soil classifications based on the Atterberg Limits and Sieve Analysis results, according to ASTM, BSI AASHTO, and USDA. The user can override these classifications if desired.



Atterberg Limits report

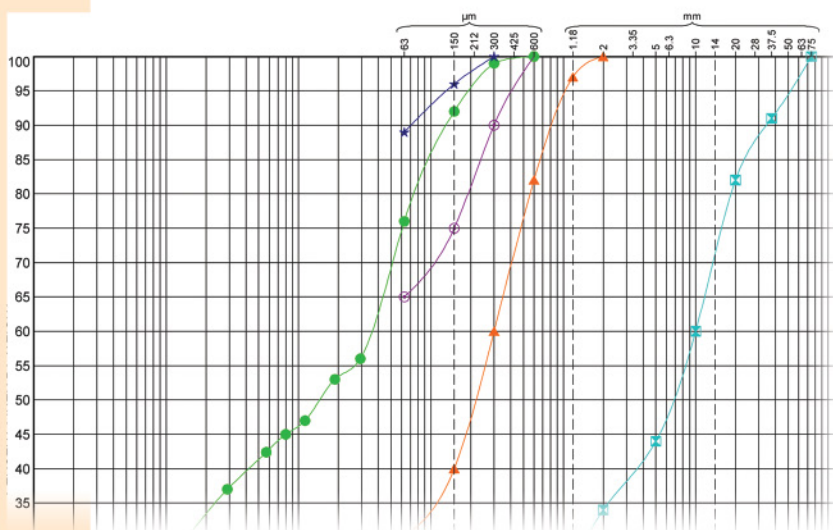
Sieve Analysis

Here are two examples of sieve analysis reports you can create with gINT. Note that these reports automatically combine the results of the sieve analysis tests and hydrometer analysis tests into one curve.



Sieve analysis report

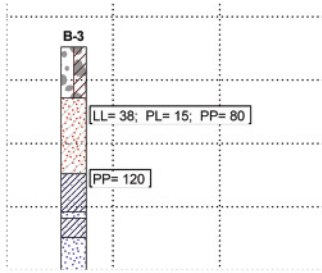
Note: Although all levels of gINT include lab testing data entry capabilities, reports using graphs, histograms and graphical tables require gINT Professional.



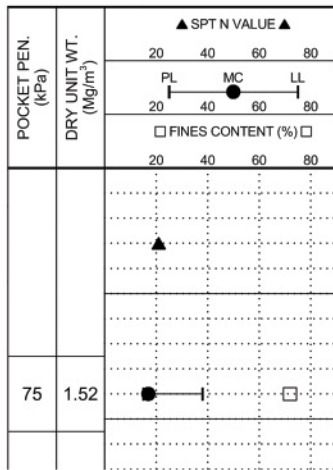
Sieve analysis report

Use Your Lab Data on Any Type of Report

gINT can take raw lab data and perform calculations, saving you painstaking hours of number crunching. Once your raw lab data is entered, the resulting calculations can be used on any type of report in gINT Professional—logs, graphs, charts and more. For example, you can include the same Atterberg limit result on a borehole log, fence diagram, graph, histogram, table or text document.



Lab data on a fence diagram



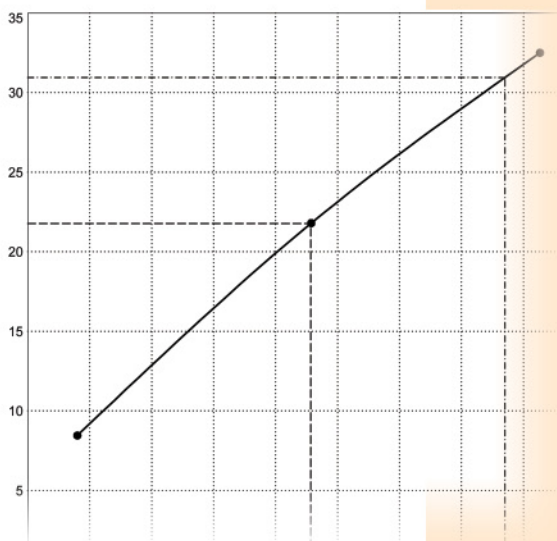
Lab data on a log

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<0.075 Sieve	Classification	Water Content (%)	Dry Density (Mg/m ³)
B-1	1.5	38	15	23	0.075	72	CI	17.0	1.52
B-3	1.5	38	15	23	0.075	72	CI	17.0	1.52
LAB-1	0.3	61	28	33	0.15	85	CH	25.6	1.59
LAB-1	0.5				2	38			
LAB-1	1.5	28	20	8	4.75	70	CL		
LAB-1	3.0	NP	NP	NP	4.75	8	SW-SM	16.7	1.82
LAB-1	4.5	47	27	20	0.6	87	CI	20.3	1.72
LAB-1	8.7	39	22	17	0.3	91	CI	24.0	1.62
LAB-2	0.0				0.25	92		15.4	1.81
LAB-2	1.5	62	29	33	0.6	76	CH	39.4	1.23
LAB-2	4.0	35	15	20				24.7	1.56
LAB-2	5.8	31	22	9	75	14	GC	26.8	1.54
LAB-2	7.3	37	22	15	2.36	30	SC	31.3	1.43
LAB-2	8.8	NP	NP	NP	0.3	89	ML	10.4	1.62
LAB-2	10.0	37	22	15	0.6	65	CI	14.9	1.87
LAB-3	0.0				2	53			

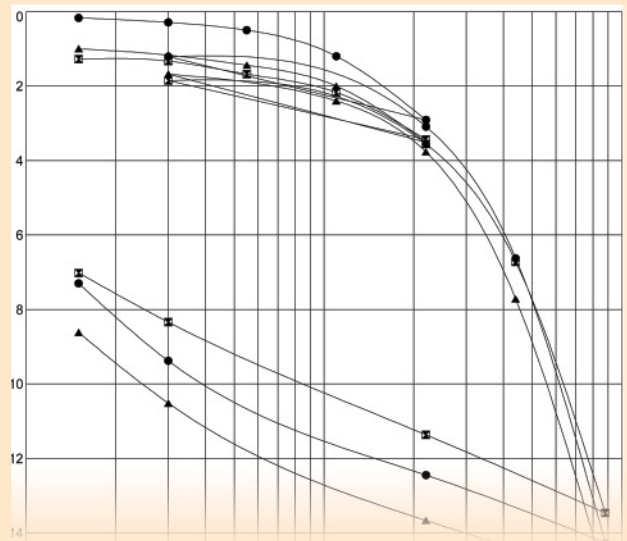
Lab data in a table

Other gINT Lab Testing Reports

Here are just a few samples of additional gINT lab testing reports. Need a different test or report? You can modify or add new tests and reports, or we can help you create exactly what you need.



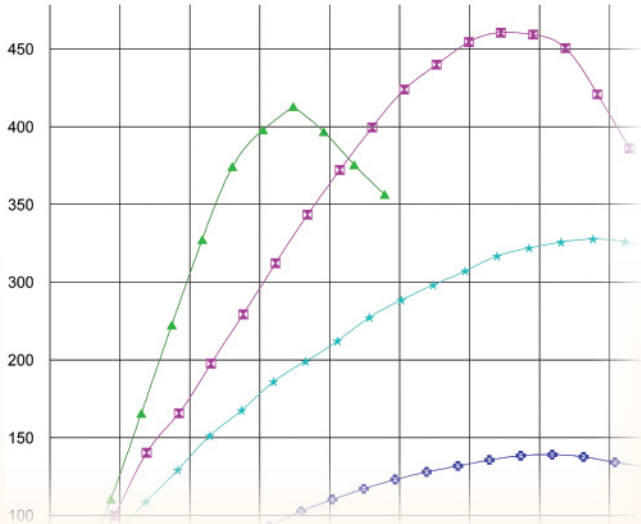
California Bearing Ratio vs. Dry Density



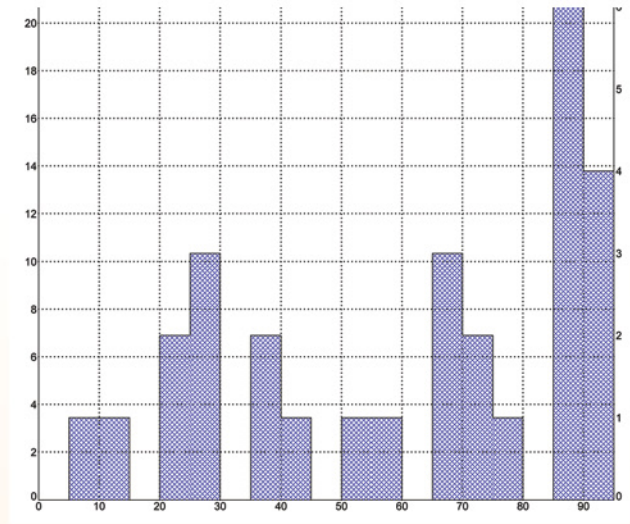
Consolidation, Strain vs. Stress

Other gINT Lab Testing Reports

(continued from previous page)



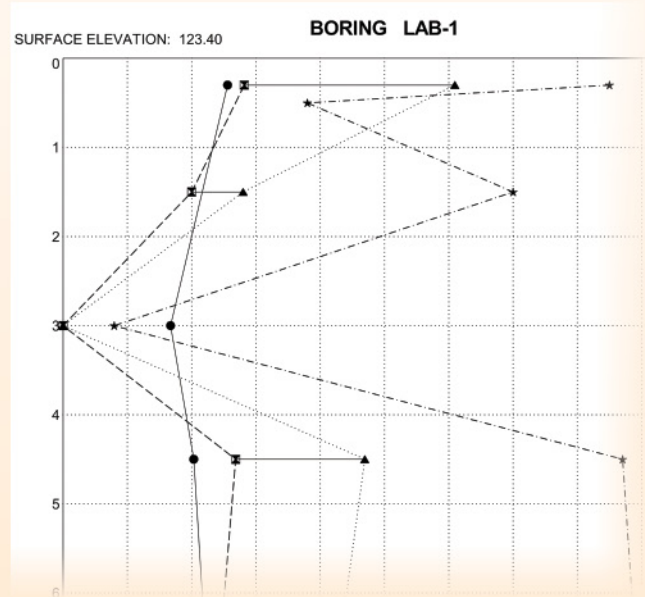
Unconfined Compression Test



Fines Content Frequency Distribution

CONCRETE COMPRESSION TEST REPORT							
Report To:	ACME Properties Attn: John Smythe 1234 Main Street Suite 111 Someplace, CA 94000			Project Number:	1234.ABCD		
				Project:	ACME Develop		
				Location:	4321 State St Somewhere, C		
Mix Data							
Material Type:	Concrete	Aggregate Size:	1" x #4				
Supplier:	XYZ Concrete	Admixture:	---				
Mix Number:	4567	Specified Strength:	300				
Cement Factor:	5.25	Slump Requirement:	3-				
		Air Content Requirement:	4-				
Sample Data							
Sample Date:	5/20/05	Notes: Light drizzle during sampling.					
Set Data (ASTM C31)							
Laboratory Number:	050520			Slump (ASTM C143):			
Set Number:	1	of 3		Ambient Temperature:			
Time Cast:	10:00am			Sample Temperature (ASTM C1064):			
Field Technician:	A. Bore			Air Content (ASTM C173/C231):			
Truck/Ticket Number:	0000	/ 000-123456		Unit Weight-Fresh (ASTM C138):			
Testing Technician:	I. Core			Unit Weight-Dry (ASTM C567):			
Placement Location:	Footings-Line 99/Row Z						
Test Data (ASTM C39)							
Sample Number	Date Tested	Age	Dimensions (in)	Area (in ²)	Load (lbf)	Corr. Factor	Cur Type
0001	5/27/05	7	6 X 12	28.27	62420	1.00	L
0002	6/3/05	14	6 X 12	28.27	102150	1.00	L
0003	6/17/05	28	6 X 12	28.27	125650	1.00	L
0004	6/17/05	28	6 X 12	28.27	126850	1.00	L

Concrete Compression Test



Index Properties vs. Depth

With 14 standard lab tests, and virtually unlimited report styles, gINT offers a complete solution for your subsurface data management and reporting needs. If you need additional tests, these can be created with gINT's user-definable database structures, validation rules, and custom calculations. You can create these tests yourself, or gINT Software can perform the work for you. Let us show you how easy it is to manage your lab test reporting with gINT.