F-81 PHASE 7 INDUSTRIAL AREA, MOHALI, PUNJAB 160055 <u>GGGC\_LABORATORY@YAHOO.CO.IN</u> 0172-4666081

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## WHO WE ARE?

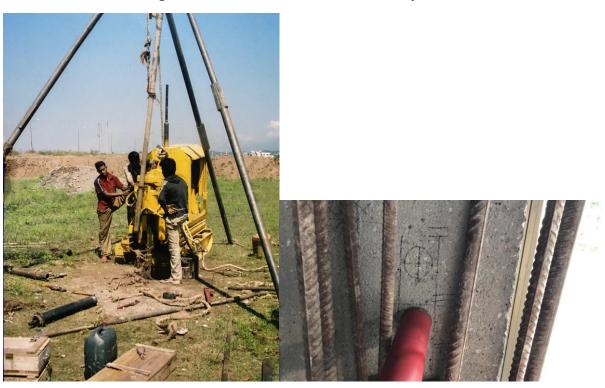


Dr. Ghuman and Gupta Geotech Consultants F-81 Phase 7 Industrial area is resided in Mohali Punjab and is one of the most technically advanced engineering laboratories in India. Recognizing the need for a highly competent laboratory offering a full range of construction materials testing and analytical services, GGGC was established in 1992 by Dr. M.S Ghuman an Ex-professor, Department of Civil Engg, Punjab Engg College, Chandigarh, India and Er. Rajiv Kumar Gupta Member of Geotechnical Society. The technical advisory committee includes eminent scientists, professionals and technocrats from various engineering fields.

We have a full-fledged laboratory for carrying out soil investigations and testing of various types of construction materials at F-81, Industrial Area, Phase VII Mohali (Punjab) covering an area of 525 sq. yards well equipped with latest equipment's. Since we follow meticulously the procedures as laid down in relevant codes and so our test results manifest high degree of accuracy. Taking into consideration our high standard of laboratory testing, our clients are quite large such as MES, CPWD; Min. of Environment. and Forest, Civil Const. Unit, New Delhi, Air Force, Northern Railway, Telecommunication Department, LIC, NBCC etc. and almost all Govt. organizations/public sectors/corporations/Boards of Punjab, Haryana and Himachal.

## DR GHUMAN AND GUPTA GEOTECH CONSULTANTS F-81 PHASE 7 INDUSTRIAL AREA, MOHALI, PUNJAB 160055 GGGC LABORATORY@YAHOO.CO.IN 0172-4666081 GGGCLABORATORIES.COM

We have successfully completed a large number of Geotechnical Investigations including testing of construction materials of various prestigious projects of MAP Project for MES, large number of projects of CPWD, AAI and BSNL at various sites all over Punjab, J&K. Haryana and HP in Uttarakhand, the recent GGGC lab operation in Mohali is a NABL accredited testing laboratory in accordance with the ISO/IEC 17025:2005 procedures in the field of Mechanical, Non Destructive Testing & Chemical Testing (TC-5045), which include condition assessment of old RCC structures, Fire Burnt Structures ensuring consistent reliable laboratory results.



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Each GGGC staff member is committed to providing our clientele with the utmost in quality, professional and cost effective services.

The combination of GGGC's wide range of specialized testing and experienced team of scientists, engineers & chemists provide the most comprehensive range of integrated advisory and technical services. The laboratory has been performing material testing, geotechnical investigations, NDT tests and structural evaluation for the entire spectrum of civil engineering infrastructure projects throughout the country, and even further afield.

One of our primary services is to provide foundation recommendations to clients. GGC has provided foundation recommendations for civil

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engineering projects to a variety of clients over the spectrum of development, retail, manufacturing, industrial and government service. GGGC has successfully completed thousands of projects for private, legal, and regulatory interests.

As an independent analytical laboratory, we provide prompt, precise, and impartial services to customers in the areas of building material testing, soil testing, drinking water testing, concrete testing & non-destructive testing. Utilizing highly effective state-of-the-art instruments and in-house system for monitoring samples throughout the testing process, we deliver the highest quality service and client confidentiality available.

We invite you to visit our facilities to further understand the quality and experience we offer clients. Feel free to offer comments and inquire about other service offerings. Our normal business hours are Monday to Saturday from 10 a.m. to 6:00 p.m. IST.



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## **ACCREDITATIONS & APPROVALS**

GGGC lab operation in Mohali is a NABL accredited testing laboratory in accordance with the ISO/IEC 17025:2005 procedures in the field of Mechanical, Non Destructive Testing & Chemical Testing vide Certificate Number TC-5045 valid upto 20.12.2021.





National Accreditation Board for Testing and Calibration Laboratories

NABL

#### CERTIFICATE OF ACCREDITATION

#### LABORATORY DIVISION - DR GHUMAN AND GUPTA GEOTECH CONSULTANTS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

F-81 PHASE 7, INDUSTRIAL AREA, MOHALI, PUNJAB, INDIA

in the field of

**TESTING** 

Certificate Number: TC-5045

Issue Date: 16/01/2020

Valid Until:

20/12/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer

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- Our laboratory is approved by The Chief Engineer, CPWD, Chandigarh, Kendriya Sadan Sector 9 A, Chandigarh. Vide letter No. 23(670)/CE(Chandigarh)/3196 dated: 30.12.2019.
- Our laboratory is approved by The Superintending Engineer, Jammu Circle, CPWD, Landoi Bridge, Satwari Cantt., Jammu (J&K) vide letter No. JMCC/QA/2019-20/2388-H dated: 22.11.2019.
- Our laboratory is approved by The Superintending Engineer,
   Dehradun Central Circle, CPWD vide letter No. 12 (6)/DCC/21 dated: 05.01.2018. Our laboratory is also approved by The Superintending Engineer, Jalandhar Central Circle, CPWD vide letter 54 (1)/QA/JCC/2019/812-H dated: 16.05.2019, the Superintending Engineer, Shimla Central Circle, CPWD vide letter 23 (QA)/SCC/2019/997 dated: 22.05.2019.
- Our laboratory is also approved by The SM Engg (Str), Airport Authority of India vide Letter No. AAI/Str/R&D Lab/Lab-Emp/2017/885 dated: 07.06.2017 valid upto 31.03.2020.
- Our laboratory is also approved by The Chief Engineer (Civil)
   BSNL HP Civil Zone (South), Shimla vide letter No.W-01(09)CE(C-S)/HP/BSNL/SML/795 dated: 20.12.2018.
- Our laboratory is also approved by Engineer in Chief, PUDA, SAS
   Nagar for CIvil Construction Materials Testing and Geotechnical
   Investigation Tests vide Memo No.PUDA/DE(S)/2017/4915 dated:

   03.08.2017 for period of 3 years.

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The Importance of Construction

Materials Testing



A building's structure is much more than floors, walls and a foundation. Virtually all buildings rely on a variety of support materials, including layers of soil and cement, to maintain long-term stability. Construction materials testing (CMT) is a vital process that helps builders and site owners identify potential problems before committing resources to the project. Testing is also essential for keeping the structure in line with applicable legal requirements, including occupational safety and environmental regulations.

As an integrated consulting and management firm, GGGC Services offers comprehensive materials testing solutions that include field examinations, laboratory tests and special inspections. Materials testing and engineering ensures that the structural materials used during construction meet all necessary quality benchmarks. Our experts control the risks associated with building construction through the testing of earthworks, soils, concrete, masonry, asphalt, reinforcing steel, structural steel, water and other construction materials.

## **Why Construction Materials Testing Matters**

In the construction industry, the term "materials testing" can refer to the evaluation of almost any kind of building material that impacts the

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project at hand. This includes aspects of the local terrain, including soil quality and composition, as well as potential impact on nearby structures. It also encompasses testing of concrete, steel, masonry and woodwork elements throughout the structure.

The testing process is important because it allows inspectors and builders to identify faults before an actual stress test, where personal and environmental safety is at risk. Even detailed inspections aren't completely foolproof, but they are still extremely cost-effective and helpful throughout the construction process. Materials testing helps avoid expensive repair or renovation work to correct faults and mitigate risks to other people and property. Various inspections and proof of materials quality is also required by law depending on the location and type of structure.

## **Building Materials and Structural Testing**

Observation and monitoring of foundation installation is another essential component of materials testing since faulty material or implementation can yield chronic and potentially disastrous consequences. Testers also conduct periodic evaluations at certain points throughout the construction process to ensure that all materials meet the minimum IS standards. This includes evaluation of reinforcing steel, fireproofing and building envelope quality assurance.

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## **Our Special Inspections Capabilities**

We provide systematic testing and inspection services to assure that construction materials meet project specifications as well as sustainability goals, saving our clients from costly change orders and delays and reducing future maintenance and repair. These evaluations also ensure that the building can pass official site inspections regarding occupational, environmental and public safety.

## **GGGC's Construction Materials Testing Services Include:**

- PAVEMENT DESIGN IIT PAVE AND CONCRETE DESIGN MIX
- SOIL INVESTIGATIONS FOR BUILDINGS, BRIDGES, OHSR, EARTH DAMS, IRRIGATION STRUCTURES, TOWERS AND INDUSTRIAL BUILDINGS
- CHEMICAL TESTING OF STEEL AND CEMENT.
- BRICKS AND PAVER COMPLETE TESTING
- WOOD IDENTIFICATIONS
- EVALUATION OF DYNAMIC ELASTIC PROPERTES & ANALYSIS OF MACHINE FOUNDATIONS & SOIL STABILIZATION PROBLEMS
- DRINKING WATER TESTING
- REINFORCING STEEL EVALUATION
- FIRE BURNT TESTING AND EVALUATION NONDESTRUCTIVE TESTING/INSPECTION

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- CONCRETE CORE TESTING
- PLAIN TABLE SUVEYING, LEVELLING, CONTOURING & DEMARCATION
- POST-CONSTRUCTION AND OPERATIONS
- EXAMINATION/TESTING OF IN-PLACE MATERIALS (SOILS, AGGREGATES, CONCRETE, TILES, AND ASPHALT)
- ASPHALT AND CONCRETE DESIGN
- STRUCTURAL ASSESSMENT OF CONCRETE STRUCTURES
- SOILS STABILIZATION (CEMENT AND LIME-TREATED)
- WELD TESTING
- PREPARATION OF DETAILED PROJECT REPORT (DPR)
- REVERSE ENGINEERING TO MAKE STRUCTURE DRAWINGS
- CRACK DEPTH

  MEASUREMENT
- CAPO TEST
- TRAININGS
- PILE INTEGRITY TEST
- PHYSICAL & CHEMICAL

  TESTING OF BUILDING MATERIALS
- EARTH RESISTIVITY TEST



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## **OUR TEAM**

# T TOGETHER E EVERYONE A ACHIEVES

M MORE



## 1. Er. RAJIV K. GUPTA CHIEF EXECUTIVE OFFICER

B.E.(Civil) (Hons.) PEC Chd – M.I.E

Member Indian Geotechnical Society

**Experience** 26 years' experience of rendering consultancy in the field of Geotechnical Engineering.

Rendered consultancy to more than 1000 projects.

2. **ER. ANURAG GUPTA QUALITY MANAGER** BTECH. Civil Engg, ME CTM NITTTR, Chd. Experience 5 years

3. **Dr. GAURAV GUPTA** 

TECHNICAL MANAGER

BE Civil Engg, MTech Delhi College of Engg. Geotechnical engg, PhD Geotechnical Engg NITTTR Chd.

Experience 7 years

4. **HARVINDER SINGH** 

FIELD EXECUTIVE OFFICER

Experience 20 years

5. **INDERJIT SINGH HUNDAL** 

FIELD EXECUTIVE OFFICER

Experience 22 years

6. **SUSHIL KAPOOR** 

FILED EXECUTIVE OFFICER

Experience 24 years

7. SUNIL SAINI

FIELD EXECUTIVE OFFICER

Experience 21 years

8. **DAVINDER SINGH** 

LABORATORY ANALYST

Experience 19 years

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9. **PUNEET** LABORATORY ANALYST

Experience 18 years

10. GURSEWAK SINGH LABORATORY ANSLYST

Experience 3 years

11 **RAVI BISHT** FIELD EXECUTIVE OFFICER

Experience 15 years

12. Mrs. NAMRATA SINGH LABORATORY ANALYST

Experience 4 years (CHEMICAL)

13. Mrs. ARUNA THAKUR LABORATORY ANALYST

Experience 2 years (CHEMICAL)

14. **PARMJIT SINGH** HEAD FIELD SUPERVISOR

Experience 17 years

15. **AMARPREET SINGH** FIELD EXECUTIVE OFFICER

Experience 7 years

16. **SKILLED LABOUR** VARIABLE NUMBERS

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- → Provide services to customer's satisfaction by striving to become trustworthy laboratory by ensuring competence, impartiality and consistent operations of the laboratory.
- The laboratory management and its personnel are committed to good laboratory practices and quality in testing at par with the best industry practices in servicing its customers.
- The laboratory standard of service is to ensure that it does not engage in any activities that would diminish confidence in its competence, impartiality, judgment or operational integrity and shall never be compromised.
- Monitor quality objectives and rigorously follow findings of audits and actions decided in management reviews to continually improve standard of services delivered to customers.
- Making quality a commitment for all staff by familiarizing staff with the management system through training so that they can implement with self believe laid down policies and procedures in their work.
- ➡ Effective implementation of quality management system as per ISO/IEC 17025-2017 towards total quality and continual improvement of all processes.

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## **QUALITY OBJECTIVES**

- To regularly participate in quality assurance schemes to ensure that there is no z score of greater than  $\pm 3$ , for the same parameter in two consecutive programs.
- To analyze internal quality control data once every six month to ensure that outliers i.e. results outside the specified criteria are minimum.
- To evaluate customer complaints and customer feedback once every six month for inputs for the improvement of management system.



## PARTIAL LIST OF SOME OF OUR MAJOR CLIENTS (GOVT. DEPARTMENTS)

- 1. Central Public Works Department
- 2. Military Engineering Services

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## **GGGCLABORATORIES.COM**

- 3. Bharat Sanchar Nigam Limited
- 4. Northern Railway
- 5. National Institute of Technical Teachers Training and Research Chandigarh
- 6. National Buildings Construction Corporation Limited
- 7. Chandigarh Housing Board
- 8. Capital Project, Chandigarh
- 9. Municipal Corporation Chandigarh.
- 10. Panjab University, Chandigarh
- 11. Post Graduate Institute of Medical Education and Research,

## Chandigarh

- 12. Army Welfare Housing Organisation
- 13. Air force Naval Housing Board
- 14. Ministry of Environment & Forest, Civil Construction Unit
- 15. Central Warehousing Corporation
- 16. BPCL
- 17. Improvement Trust, Punjab
- 18. IOCL

## F-81 PHASE 7 INDUSTRIAL AREA, MOHALI, PUNJAB 160055 <u>GGGC\_LABORATORY@YAHOO.CO.IN</u> 0172-4666081

- 19. Hindustan Petroleum Corporation Ltd.
- 20. Punjab State Electricity Board
- 21. Haryana Police Housing Corporation Ltd.
- 22. Punjab Police Housing Corporation Ltd.
- 23. HSIDC
- 24. PWD B&R Punjab
- 25. Punjab Mandi Board
- 26. Punjab Urban Planning & Development Authority
- 27. Punjab Health System Corporation Limited
- 28. Punjab Water Supply and Sewerage Board
- 29. Public Health Systems Corpn. Ltd.
- 30. Punjab Markfed
- 31. Food Corporation of India
- 32. RITES
- 33. Airport Authority of India
- 34. PWD B&R Haryana
- 35. HP Housing and Urban Dev. Authority
- 36. National Buildings Const. Corpn. Ltd.

## DR GHUMAN AND GUPTA GEOTECH CONSULTANTS F-81 PHASE 7 INDUSTRIAL AREA, MOHALI, PUNJAB 160055 GGGC\_LABORATORY@YAHOO.CO.IN 0172-4666081 GGGCLABORATORIES.COM

- 37. Postal Civil Division
- 38. Power Grid Corpn. Of India



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## PARTIAL LIST OF SOME OF OUR MAJOR CLIENTS (PRIVATES)

- 1. NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH (NIPER) PHASE X, SAS NAGAR, MOHALI.
- 2. F.I. ASSOCIATES (P) LTD. A-45, PHASE-VIII-B, INDUSTRIAL AREA MOHALI
- 3. SILVER CITY, ZIRAKPUR
- 4. TATA TELE SERVICES
- 5. T.I.C.S., NEW DELHI
- 6. CONSOLIDATED CONSTRUCTION CONSORTIUM LIMITED, INFOSYS IT PARK PROJECT, CHANDIGARH.
- 7. HINDUSTAN LEVER LTD, BADDI
- 8. COLGATE PAMOLIVE, BADDI
- 9. TORRENT PHARMACEUTICALS LTD., BADDI
- 10. IND CHEMIE WORKS, BADDI
- 11. CADILA HEALTH CARE LTD. BADDI
- 12. PANECEA BIOTEC, BADDI
- 13. EMSAR INDIA PVT. LTD., KUNJHAL, BROTIWALA
- 14. INDAG RUBBER LTD.
- 15. WIPRO LTD.
- 16. FEMCARE PHARMA, MANAKPUR
- 17. HAVELL'S INDIA LTD.
- 18. UNICHEM LABORATORY

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- 19. ALKEM LABORATORY
- 20. HYGIENIC RESEARCH INSTITUTE, BAROTIWALA
- 21. LEGACY FOOD PVT. LTD. BADDI
- 22. ANCHOR HEALTH AND BEAUTY CARE, BADDI
- 23. NOVA PRECISION PLASTIC PVT. LTD., BAROTIWALA
- 24. LEE COOPER INDUSTRIES, BADDI
- 25. JUPITAR INDUSTRIES, BADDI.
- 26. GINI AND JONY APPARELS PVT. LTD., BADDI
- 27. CIPLA LTD., BADDI
- 28. CEMENT GRINDING UNIT AT VILLAGE VIR PLASI, TEHSIL

#### NALAGARH

- 29. MAHAVIR SPINNING MILLS, BADDI.
- 30. SHRINIVAS (GUJRAT) LABORATORIES PVT. LTD.. BADDI
- 31. LANDIS + GYR LTD. AT BADDI, TEHSIL NALAGARH
- 32. INDIAN HERBS RESEARCH SUPPLY CO. LTD., BADDI
- 33. EURO SOLAR ENERGY SYSTEMS LTD., BADDI
- 34. UNITED BIOTECH (P) LTD., NALAGARH
- 35. GEEP BATTERIRES PVT LTD., BADDI
- 36. ACTION SHOES, BADDI
- 37. SRI RAMA STEELS AT BAROTIWALA, BADDI ROAD

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- 38. ANKUR DRUG & PHARMA LTD., BADDI
- 39. AURO TEXTILES, BADDI
- 40. LEXION BIOTECH (INDIA) LTD.
- 41. IND SWIFT LABORATORIES LTD.
- 42. BELLA VISTA SHOPPING MALL SITE, PANCHKULA.
- 43. SHALIMAR SHOPPING MALL, CITY CENTRE SECTOR-5, PANCHKULA.6
- 44. M/S AMAZONE INTERPRISES PRIVATE LIMITED (RELIANCE)
- 45. TANEJA DEVELOPERS AND INFRASTRUCTURE LIMITED (TDI)
- 46. OMAXE LIMITED
- 47. LEIGHTON CONTRACTOR (INDIA) PRIVATE LIMITED (EMAAR MGF LAND PRIVATE LIMITED, MOHALI)
- 48. ANSAL API, GOLF LINK TOWNSHIP, MOHALI.
- 49.A.V. CONSULTANTS S.C.O. 371-72-73, SECTOR-34A, CHANDIGARH.
  50.DLF
- 51.M/S MAX HEALTH CARE INSTITUTE LIMITED

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## **HIGHLIGHTS**

- M/S C&C CONSTRUCTIONS LIMITED (PROPOSED 17 STOREYED BUS TERMINAL CUM COMMERCIAL COMPLEX AT PHASE-VI MOHALI).
- CONSTRUCTION OF WAREHOUSE OF GLENMARK PHARMACEUTICALS LIMITED, BADDI-FORMULATION, VILLAGE KISHANPURA, BADDI-NALAGARH ROAD, TEHSIL BADDI, DISTT. SOLAN-173205, HIMACHAL PRADESH.
- GEOTECHNICAL INVESTIGATIONS OF SOIL AT RTRS TBRL RANGE, RAMGARH
- MATERIAL TESTING FOR CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT OF DELHI-LUDHIANA-AMRITSAR-KATRA EXPRESSWAY FOR FEEDBACK INFRA PVT LTD
- GEOTECHNICAL INVESTIGATIONS FOR THE CONSTRUCTION OF THE OASIS KPM HOTEL AT AMRITSAR
- CONSTRUCTION OF NEW PLANT BUILDING IN EXISTING FACTORY M/S PILKHANI DISTILLERY AND CHEMICAL WORKS SAHARANPUR
- GEOTECHNICAL INVESTIGATIONS FOR THE CONSTRUCTION OF GRADE SEPERATOR NH-22 IN BETWEEN SURAJPUR-HMT SECTION AT 0 RD OF PROPOSED PINJORE BYEPASS (EARLIER AND ADDITIONAL BOREHOLE COMBINED REPORT)
- GEOTECHNICAL INVESTIGATIONS FOR CONSTRUCTION OF FLY OVER WITH UNDER PASS AND SERVICE ROADS AT ATUL KATARIA CHOWK (OLD DELHI ROAD) & MAHAVEER CHOWK (OPPOSITE POLICE LINE) IN GURUGRAM DISTT.

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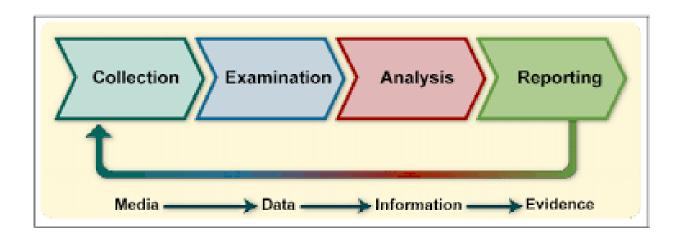
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## **GST Number and PAN No.**

1. GST Number 03AAAFG7020N1ZN

2. PAN Number AAAFG7020N





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## **LIST OF EQUIPMENTS FOR SOIL TESTING**

- 1. A tripod assembly with a pulley, hoisting and lowering arrangements-4 Sets.
- 2. Casting pipes of 100mm, 150mm and 200 mm
- 3. Boring Equipment-Post hole auger 100mm diameter with extension rods with iron and wooden clamps.
- 4. Drill rods having stiffness of A rods and 1.5 m long each upto 50m depth.
- 5. Centering guide for keeping drill rods vertical
- 6. Drive weight assembly consisting of
  - a) Guide rod with driving head-3 Nos.
  - b) Hammer of 65 kg. Weight-3 Nos.
- 7. Thin walled sampling tubes of 38,60,75 and 100 mm dia about 5 Dozens.
- 8. Split spoon sampler with a drive shoe and sampler Head-5 Nos.
- 9. 50 mm cones for Dynamic Cone Penetration Test-6 Nos.
- 10. Plate Load Test steel grooved plates of different sizes.
- 11. Hydraulic Jack and Pump-capacity 25 tons.
- 12. Dial gauges and Datum bar, Dial gauge stands.
- 13. Packing columns of different sizes.
- 14. Kentledge facilities for reaction loading.
- 15. Miscellaneous such as measuring tape, trowels, spades, pick axes, sealing wax, observation sheets, polythene bags, pipe wrenches, chain wrenches, Drill rods clamp, jute and steel ropes etc.
- 16. Consolidation Apparatus with Complete Assembly-4 Nos.
- 17. Triaxial shear Testing apparatus.

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#### **GGGCLABORATORIES.COM**

Two Triaxial Cell (complete with all components)

Motorised System to apply load corresponding to 8 speeds.

Foot pumps for generating cell pressure.

Self-compensating Mercury control device for applying and maintaining constant cell pressure

- 18. Unconfined compressive strength apparatus with complete assembly-2 Nos.
- 19. Direct shear test apparatus.
- 20. Variable Head Permeability apparatus-2 Nos.
- 21. Constant Head Permeability apparatus
- 22. Proving rings with dial gauges of various capacities.
- 23. Universal sample extractors-2 Nos.
- 23. Split moulds for collecting samples out of sample extractors-2 Nos.
- 25. Grain Size distribution apparatus Hydrometer and pipette method.
- 26. I.S. Sieves: 100mm, 80mm, 63mm, 50mm, 26.5mm, 22.4mm, 19mm, 13.2mm, 11.2mm, 6.7mm, 5.6mm, 4.75mm, 2.8mm, 2.36mm, 1.18mm, 0.600mm, 0.300mm, 0.212mm, 0.18mm, 0.15mm, 0.094mm, 0.075 m, lid an pan.
- 27. Motorised Sieve shaker
- 28. Liquid Limit Apparatus with grooving tools-Motorised and Hand Operated
- 29. Plastic Limit Test Apparatus
- 30. Shrinkage Limit Set Apparatus
- 31. Drying ovens with thermostatic control.

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- 32. Electric Balances.
- 33. Physical balances with Analytical weight Box of 100 gms and 2000 gms.
- 34. Standard Proctor Compaction Test Apparatus.
- 35. Proctor Needle spring type.
- 36. Relative Density Test apparatus.
- 37. C.B.R. test apparatus for unsoaked and soaked conditions for design of flexible road pavements.
- 38. Core cutters with Dolly for D.B.D.-15 Nos.
- 39. Sand Replacement apparatus for Insitu Density.
- 40. Pycnometer, Specific Gravity Density Bottles.
- 41. Sampling tins for moisture and sand content-5 Dozens.
- 42. Pinhole test Apparatus.
- 43. Double hydrometer Test Apparatus



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- 44. Crumb Test Apparatus.
- 45. Necessary glass apparatus and chemical for testing of exchangeable ions and the presence of deleterious salts in soil (like SO<sub>4</sub>, CI, CO<sub>3</sub>, etc.)
- 46. Modulus of sub-grade Reaction K-value test Apparatus as per IS requirements.
- 47. Hydraulic Jack and Pump of 25 tons capacity.

## LIST OF EQUIPMENTS FOR TESTING CIVIL CONSTRUCTION MATERIAL TESTING

NDT FOR CONCRETE TANKS

- 1. Marshal test Apparatus Mould.
- 2. All chemical reagents for analysis suitability of water and construction purpose.
- 3. Vicat Apparatus with plunger and needles for consistency and setting time of cement.
- 4. Lechatelier Air Permeability for soundness of cement.
- 5. Blain's Air permeability apparatus for specific surface area of cement.

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- 6. IS Sieve 170 for fineness by dry sieving.
- 7. Standard Sands for making 3"x3"x3" cubes
- 8. 25 No. Cube moulds
- 9. Mechanical Hydraulic Compressible strength test machine of 100 tons capacity
- 10. All chemicals and glass apparatus for chemical analysis of cement sand mortar and cement concrete samples.
- 11. Miscellaneous apparatus like cylinders, towel, spatulas, saw, spanners, files,
  - cube, moulds, wash bottles, dessicator etc.
- 12. 2 Nos. balance of 5 kg. Capacity each with different weights ranging from 50 gram to 5 kg.
- 13. Hot Plate
- 14. Bitumen tests apparatus.
  - (a) Penetration Test
- (b) Marshall Stability
- (c) Softening point test (Ring & ball Apparatus)
- (d) Bitumen extractor.
- 15. Aggregate Tests
  - (a) Crushing value of test apparatus
  - (b) Impact test
  - (c) Elongation test
  - (d) Soundness apparatus
- 16. Concrete Mix Design Apparatus
- 17. Flush Door/MDF/Shutters test Apparatus

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- 18. Plywood shutter Apparatus.
- 19. Testing kit for paving Asphalts as per IS requirements.
- 20. Bituminous content (Extraction) test apparatus.
- 21. Marshall stability test Apparatus for design of Asphaltic concrete and Dense Bituminous Macadam, mixes as per MOST/IRC requirements.
- 22. Testing Apparatus for Design of Granular Sub-base, Wet Mixes as per MOST/IRC requirements.
- 23. Test Apparatus for determining relative degree of field compaction of road sub-grade.
- 24. Benkelman's Beam Apparatus for deflection test on existing pavements for strengthening or Design of overlay as per IS code.
- 25. Gradation test on materials for W.B.M. base/sub-base courses for road pavements as per MOST/IRC requirements.
- 26. Laboratory tests for suitability of soils for road embankments as per MOST/IRC requirements.
- 27. Ductility test on paving Asphalts.
- 28. Apparatus for Aggregate Impact value (AIV) test for road aggregates.
- 29. Stripping value test Apparatus for road aggregate.
- 30. Bitumen Penetration test Apparatus as per IS code.
- 31. Bitumen Density test Apparatus.
- 32. Bitumen Softening point (R&B) test Apparatus.
- 33. Flakiness and Elongation Indices test Apparatus for road aggregates.
- 34. Soundness test Apparatus for road aggregates.
- 35. Water Absorption test for road aggregates.

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- 36. Test Apparatus for Lime, Soil and Cement-soil mixes for stabilization.
- 37. Computerised Universal Testing Machine from Blue Star of Capacity 40 T and 100 T (being installed) for steel testing.
- 38. Aimil Cement Autoclave
- 39. Specific Gravity and Water Absorption Apparatus (Wire mesh Basket)
- 40. Humidity Chamber (0 to 60° Temperature 0-110% Humidity)
- 41. Digital Water Bath (Hot) and Cooling Water Bath
- 42. Digital Thermo Hygrometer
- 43. Humidifier
- 44. Length Comparator
- 45. Wet and Dry Thermometer
- 46. Sample Riffler
- 47. Digital Tachometer
- 48. Vacuum Dessicator
- 49. Rubber Pestle & Mortar
- 50. Efflorescence Trays
- 51. Extensometer for 0.2% Proof Stress
- 52. UV-Visible Spectrophotometer
- 53. Semi Automatic Carbon Sulphur Apparatus
- 54 Rebound Hammer Schmidt Proceq
- 55. Pile Integrity Test Apparatus
- 56. CAPO Apparatus
- 57. Ferro Scanner Hilti

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- 58. Ultra Pulse Velocity Test Proceq
- 59. Garmin Carbonation Spray
- 60. Hilti DD120 Concrete Core Cutting machine
- 61. PH Meter
- 62. Turbidity Meter
- 63. Hot & Cold Water Bath



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ULTRA PULSE VELOCITY TEST IN COLUMN ULTRA PULSE VELOCITY TEST IN FOOTING



A TEAM IN PURSUIT OF EXCELLENCE

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DOUBLE HOOKED STEEL FIBRE USED IN CONCRETE

## CHANDIGARH POLICE CYCLATHON PARTICIPATION





SURVEY IN HIMACHAL PRADESH

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WORKS AT BRO LEH



SOIL INVESTIGATIONS



SITE INSPECTION



CERTIFICATE OF PARTICIPATION AT







REBOUND HAMMER TEST

## DR GHUMAN AND GUPTA GEOTECH CONSULTANTS F-81 PHASE 7 INDUSTRIAL AREA, MOHALI, PUNJAB 160055 GGGC\_LABORATORY@YAHOO.CO.IN 0172-4666081 GGGCLABORATORIES.COM



## FERRO SCANNING TEST PROPOSED CHANDIGARH FLY OVER





**EARTH RESISTIVITY TEST** 

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TRAINING ON DECISION RULE



CONCRETE CORE CUTTING



FULLY AUTOMATIC COMPRESSION TESTING MACHINE WITH TWO LOADING FRAMES 3000 KN AND 500 KN

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CONCRETE RESISTIVITY TEST MUMBAI CARBON

TRAINING BY MR. ABHAY FROM

#### **SULPHUR APPARATUS**





TRAINING AT NCB BALLAGBARH MACHINE

AUTOMATIC COMPRESSION TESTING

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USE OF PPE'S NON DESTRUCTIVE TESTING AT KUALA LUMPUR MALAYSIA

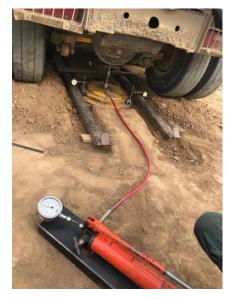






SOIL INVESTIGATIONS AT LOMA 150 KM FROM LEH

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K VALUE TEST

IN HOUSE TRAINING AT GGGC



IDENTIFICATION OF PAVEMENT LAYERS



COLLECTION OF SOIL SAMPLE FOR CBR TEST

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INSPECTION OF FOOTING SOIL INVESTIGATIONS WORK AT TRIBUNE CHOWK CHANDIGARH

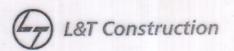


CARBBONATION DEPTH



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## NON DESTRUCTIVE TESTING COMPLETION CERTIFICATE FOR L&T CONSTRUCTION



CIN-L99999MH1946PLC004768

Dated: 24-02-2018

## To whomsoever it may concern

This is to certify that we had awarded the work of Rebound Hammer, Ultrasonic Pulse Velocity & Core compressive strength testing of Columns & Slab to M/s Ghuman & Gupta Geotech Consultants (S0035739) vide our Work Order No. EG837WOD7000004 of Amount Rs. 1824100/- for Retrofitting Work Project, Chandigarh.

The agency had successfully completed the scope of work in the month of January' 2018.

For Larsen & Toubro Limited. ECC division

Project Manager Retrofitting Project, Chandigarh