

**2018 TERRACON SCHEDULE OF FEES
FOR
ENVIRONMENTAL CONSULTING SERVICES, GEOTECHNICAL
ENGINEERING CONSULTING SERVICES, AND CONSTRUCTION
MATERIAL ENGINEERING AND TESTING CONSULTING SERVICES**

ENVIRONMENTAL CONSULTING SERVICES

Hourly Fees for Personnel

Personnel:	Rate/Hour
Senior Principal/Program Manager.....	\$175.00
Principal	\$160.00
Senior Project Manager.....	\$150.00
Project Manager.....	\$135.00
Project Environmental Professional IV	\$135.00
Project Environmental Professional III.....	\$120.00
Project Environmental Professional II.....	\$110.00
Project Environmental Professional I.....	\$95.00
Environmental Technician II	\$85.00
Environmental Technician I	\$70.00
Draftsperson/CAD Operator II	\$70.00
Draftsperson/CAD Operator I	\$60.00
Administrative Assistant	\$60.00
Word Processor	\$50.00
Clerical.....	\$45.00

Reimbursable Expenses

Reimbursable Cost.....	Cost Plus 15%
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Travel Expenses

Airfare/Car Rental	Cost Plus 15%
Field Vehicle, per day.....	\$70.00
Vehicle Mileage, per mile	\$0.585
Per Diem (food and lodging).....	\$135.00
Document Delivery/Overnight (per package).....	\$25.00

Field Equipment

Disposable Bailer (each)	\$10.00
PID Meter (per day).....	\$110.00
Water Level Indicator (per day)	\$35.00
pH/Conductivity/Temperature Meter (per day).....	\$35.00
Interface Probe (per day)	\$85.00
Survey Equipment (Autolevel and Rod – per day)	\$100.00
Submersible Purge Pump (per day)	\$35.00
Peristaltic Pump (per day)	\$ 60.00
Low-Flow Bladder Pump (per day)	\$ 100.00
Flow-Through Cell (per day).....	\$ 100.00

Sample Kit (per day).....	\$ 35.00
Handheld GPS Instrumentation (per day).....	\$ 45.00
Trimble Pro XRS Pathfinder Backpack GPS (per day)	\$ 165.00
20' Ladder (per day).....	\$ 20.00
Low Flow Air Pump (per day)	\$ 35.00
High Flow Air Pump (per day)	\$ 50.00
IAQ Instrumentation (QTRAK, Moisture Meter) (per day)	\$ 50.00
Hand Auger (per day).....	\$ 25.00
All-Terrain Vehicle (per day).....	\$ 200.00

Special Services

1. Work on field with potentially hazardous materials: Quote will be provided.
2. Containerizing waster or cuttings: Quote will be provided.
3. Removal of containerized waste or cuttings: Quote will be provided.
4. Create access to inaccessible sites: Quote will be provided.
5. Document Copies: Quote will be provided.
6. Expert Witness: Quote will be provided.
7. Miscellaneous not included in Schedule of Fees: Quote will be provided.

ASBESTOS CONSULTING SERVICES

I. Asbestos Survey and Abatement Specifications

i. Asbestos Consultant	\$ 100.00 / hr.
ii. Asbestos Inspector	\$ 80.00 / hr.
iii. PLM Bulk Sample Analysis	\$ 15.00 / ea.
iv. AAS Lead Paint Sample Analysis	\$ 15.00 / ea.
v. Word Processing	\$ 50.00 / hr.
vi. CAD Draftsman	\$ 55.00 / hr.

II. Asbestos Project Management

i. Asbestos Consultant	\$ 100.00 / hr.
ii. Asbestos Project Manager	\$ 80.00 / hr.
iii. Asbestos Air Monitor	\$ 65.00 / hr.
1. (Includes up to 10 PCM Samples per day)	
iv. PCM Air Sample Analysis (Beyond 10 per day)	\$ 10.00 / ea.
v. TEM Air Sample Analysis (24 Hr. Turnaround)	\$ 75.00 / ea.

III. Travel Expenses

- a. Reimbursable Expenses are charged at cost plus 15%.

Vehicle Charge, per day	\$ 60.00
Mileage (per mile).....	\$ 0.58
Air Fare.....	cost +15%

Per Diem	\$ 125.00
Document Delivery/Overnight (per standard package).....	\$ 20.00

INDOOR AIR QUALITY

I. GENERAL IAQ CONSULTING: LABOR FEES

Expert Witness.....	\$ 250.00
Senior Principal.....	\$ 175.00
Department Manager, Indoor Air Quality.....	\$ 160.00
Principal.....	\$ 160.00
Senior Environmental Scientist	\$135.00
Senior Project Manager	\$110.00
Project Manager	\$110.00
Texas Licensed Mold Assessment Consultant.....	\$ 105.00
Texas Licensed Mold Assessment Technician.....	\$ 85.00
Administrative Assistant.....	\$ 60.00
Draftsperson/CAD Operator.....	\$ 60.00
Word Processor	\$ 50.00
Clerical	\$ 45.00

II. ANALYSIS, BIOLOGICAL

<u>Analysis</u>	<u>Media</u>	<u>Method</u>	
Fungal Identification	Tape/Bulk	Microscopy	\$ 35.00*
Total Bioaerosol (air)	Allergenco/AOC	Microscopy	\$ 35.00*
Viable Bioaerosol (air)	Malt/Viable	Culture/Microscopy	\$ 55.00*
Bacterial Identification	TSA/Viable	Culture/Biolog	\$ 105.00*
Sewage Indicating Bacteria	Swab	Culture/Biolog	\$ 125.00*
Legionella	Water	Viable/DFA	\$ 155.00*

* TDSHS Licensed Laboratory and/or AIHA EMLAP Laboratory with a Standard Turnaround

III. ANALYSIS, CHEMICAL

<u>Analyte</u>	<u>Media</u>	<u>Method</u>	
Total VOC	OVM or sorbent tube	GC/FID	\$ 80.00
Specific VOC	OVM or sorbent tube	GC/FID	\$ 125.00
Multiple VOC	Tenax/Silica/Suma	GC/MS	\$ 325.00
Formaldehyde	OVM (3721 or DNPH)	HPLC/GC	\$ 80.00
BTEX	OVM or sorbent tube	GC/FID	\$ 75.00

IV. FIELD EQUIPMENT

<u>Analyte/Instrument</u>	<u>Method</u>	
CO ₂ , CO, Temp, Humidity	Direct Read	Included*
Moisture	Direct Read	Included*
Photo-documentation	Digital	Included*
Airborne Particulate	Direct Read	Included*
Micromanometer	Direct Read	Included*
Infrared Camera	Thermography	\$ 250.00

*These analytical measurements included in a standard IAQ investigations/evaluations.

V. TRAVEL EXPENSES

Reimbursable Expenses are charged at cost plus 15%.

Vehicle Charge, per day	\$ 60.00
Mileage (per mile)	\$ 0.58
Air Fare.....	cost 15%
Per Diem	\$ 125.00
Document Delivery/Overnight (per standard package).....	\$ 20.00

GEOTECHNICAL ENGINEERING CONSULTING SERVICES

Engineering and Support Staff

Project Secretary.....	\$45.00
CADD Technician	\$45.00
Administrative Secretary	\$45.00
Engineering Technician	\$45.00
Senior Engineering Technician	\$55.00
Laboratory/Field Supervisor	\$75.00
Graduate Engineer/Geologist/Scientist.....	\$85.00
CME Project Manager	\$90.00
Project Engineer/Geologist/Scientist	\$110.00
Project Manager, Senior Engineer/Scientist/Geologist	\$135.00
Manager.....	\$160.00
In-House Consultant, Principal Engineer	\$175.00

Overtime rates of 1.5 times the standard hourly rate will be applicable for all hours worked before 7:00 am, after 5:00 pm, or over eight (8) hours per day, Monday through Friday. For all hours worked on Saturdays, Sundays, and holidays there will be a three (3) hour minimum charge.

Special Services

1. Work on field with potentially hazardous materials: Quote will be provided.
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6. Expert Witness: Quote will be provided.
7. Miscellaneous not included in Schedule of Fees: Quote will be provided.

General Information

Expenses incurred in connection with the project will be invoiced at cost plus 15 percent. These expenses may include the following:

- Services directly applicable to the work, such as special legal and accounting expenses, special consultants, subcontractor services, and similar costs that are not applicable to general operating expenses.
- Identifiable communication expenses, such as long distance telephone, facsimile, telegraphy, cable, express delivery charges, postage, and similar costs that are not applicable to general correspondence and/or operating expenses.
- Identifiable processing and reproduction costs applicable to the project, such as developing, blueprinting, photocopying, printing, and similar costs that are not applicable to general operating expenses.

Geotechnical Field Services

Drilling and Sampling Operations

Soil Borings, 3 in. thin-wall tube sample or 2 inch split barrel sampler, sample at 5-foot intervals (continuous 0-10 ft.)

.0 to 50 ft., per linear foot	\$10.50
.51 to 100 ft., per linear foot.....	\$12.00
Over 100 ft.	On request
Casing installation/removal, per linear foot	\$9.00
Wash or auger boring, per linear foot	\$10.50
Rock coring, soft formation, per linear foot	\$26.50
Rock coring, hard formation, per linear foot*	\$32.00

Core bit wear per linear foot

Soft formation.....	\$1.00
Hard formation*	\$3.00
Inaccessible borings requiring all-terrain drilling vehicles, additional charge, per linear foot.....	\$4.00
Special sampling techniques (piston samples, etc.).....	On Request

Standpipe/Observation well installation

(excludes material), per hour.....	\$180.00
Hourly Drilling Rate, 3-man crew, per hour.....	\$225.00
Rig Standby, per hour	\$225.00
Damaged tube samplers, each.....	\$35.00
Grouting of Test Borings (Maximum 6" nominal dia. hole, excludes materials), per hour....	\$180.00

* For very hard rock formations such as granite, or unusual conditions such as karstic limestone, prices will be quoted upon request.

Mobilization, Travel Expenses and Site Access

Mobilization, Drill Crew	\$300.00
Mobilization, all-terrain vehicle	\$600.00
Drayage, permits for equipment	Cost+15%
Rental of special equipment for site access, etc.....	Cost+15%

Resistivity Surveys

Graduate Geologist/Engineer	\$85.00
Project Geologist/Engineer, per hour.....	\$95.00
Resistivity Equipment, per day	\$225.00
Other Sampling Techniques & Services not Shown	On request

Notes

Right of entry to exploration sites must be provided by the client unless other arrangements are made in advance. Site restoration, as required by the client and due to no fault of Terracon will be billed at cost plus 15 percent.

Geotechnical Laboratory Testing Services

(The price for tests in this section are based on a per sample or per test basis.)

Strength and Volume Change Tests

Unconfined Compression Tests

Soil.....	\$50.00
Rock.....	\$55.00
Vane Shear Test.....	\$35.00
Pocket Penetrometer.....	\$7.00

Triaxial Tests

Unconsolidated-Undrained.....	\$90.00
Consolidated-Undrained w/Pore Pressure Measurements (per stage).....	\$250.00
Consolidated-Undrained Cyclic Loading.....	\$450.00
Consolidated-Drained (Sands and Silts).....	\$450.00

Direct Shear Tests

Unconsolidated-Undrained.....	\$150.00
Consolidated-Undrained (per stage).....	\$250.00
Consolidated-Drained (per stage).....	\$325.00
Consolidated-Drained, Residual Strength (per stage).....	\$450.00

Swell-Pressure Tests

Single load.....	\$165.00
Multiple load increments.....	\$225.00
Consolidation Tests, max 7 loadings.....	\$500.00
Additional load increments.....	\$65.00

Classification Tests

Liquid and Plastic Limits

Single Point Test.....	\$75.00
Three-Point Test.....	\$95.00

Particle Size Analysis

Sieve Analysis through No. 200 Sieve.....	\$100.00
Percent Finer than No. 200 Sieve (Washed).....	\$55.00
Hydrometer (Includes No. 200 Sieve).....	\$265.00

Other Tests and Miscellaneous Items

Water Content.....	\$9.50
Density of Undisturbed Samples Soil.....	\$30.00
Rock.....	\$40.00
Specific Gravity.....	\$45.00
Organic Content.....	\$40.00

Permeability

Flexible wall test-triaxial cell.....	\$350.00
Falling Head.....	\$125.00

Moisture-Density Relationship, Standard or Modified

Soil (4" and 6" Mold).....	\$225.00
Soil with Gravel, Base Materials (6" Mold).....	\$275.00
Soil, Base Material with Chemical Admixtures (6" Mold).....	\$325.00
Lime modification optimum (using pH)	\$125.00
Soil-lime mixture design (using plasticity index).....	\$300.00

Laboratory CBR Tests

(Excludes Moisture-Density Relationship)	\$500.00
Shipment of Samples to Laboratory	Cost + 15%

Notes:

- All tests not listed can be performed at either a quoted price or on an hourly basis.
- Rush test assignments requiring unscheduled overtime in the laboratory are subject to a 50 percent surcharge for a 3 day turn-around.
- Technician time for sample preparation will be \$38.00 per hour in addition to test charges. Special data presentation such as plotting stress-strain curves will be charged at the hourly rate of \$65.00 in addition to the test charges.
- Photograph of sample is \$8.00 for first copy, and \$4.00 for every additional photograph.

CONSTRUCTION MATERIALS ENGINEERING AND TESTING CONSULTING SERVICES

Construction Materials Testing and Inspection Field Services

Pick-up concrete test specimens or sampling materials, per hour	\$45.00
Vehicle Trip Charge (per trip), as applicable.....	\$30.00
Vehicle Mileage (per mile), as applicable	\$00.50
Field molding of concrete cylinders, slump, air content, and temperature measurements, per hour.....	\$45.00
Concrete field monitoring & molding of cylinders, slump, air content, unit weight, & temperature measurements, per hour	\$45.00
Concrete and asphalt, plant inspection, per hour.....	\$55.00
Concrete or asphalt coring, per hour	\$55.00
plus bit wear (length times diameter), per inch diameter	\$3.00
plus generator, per day	\$150.00
plus core rig and equipment, per day	\$150.00
plus patching of holes, each.....	\$44.00

Windsor probe or Swiss hammer testing

Senior engineering technician, per hour	\$55.00
Graduate engineer, per hour	\$85.00
Project engineer, per hour	\$95.00
plus Windsor probe or Swiss hammer, day.....	\$90.00
plus Windsor probe shots	Cost + 15%
In-place nuclear moisture-density testing, per hour	\$45.00

Full Time Earthwork Monitoring

Engineering technician, per hour	\$45.00
Senior engineering technician, per hour	\$55.00
plus nuclear gauge, per day	\$35.00
Field soil stabilization (lime or cement) monitoring, per hour	\$45.00
plus nuclear gauge, per day	\$35.00
Foundation installation monitoring, per hour	\$55.00

Roofing installation monitoring

Per Roofing Consultant Contract Fees

Visual welding inspection and welder performance qualifications

Certified welding inspector, per hour	\$95.00
NDE technician, per hour	\$Cost + 15%
Reinforcing steel inspection, per hour,	\$45.00
Radiographic examination:	
NDE technician, per hour	Cost + 15%
plus equipment, per day	Cost + 15%
plus film and supplies	Cost + 15%

Ultrasonic, magnetic particle & liquid penetrant examination

NDE technician, per hour	Cost + 15%
plus equipment, per day	Cost + 15%
plus supplies.....	Cost + 15%

Construction Materials Laboratory Testing Services

Particle size analysis

Sieve analysis through 200 sieve:

Dry, each.....	\$85.00
Washed, each	\$110.00

Percent finer than 200 sieve:

(washed, soil only), each	\$55.00
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Hydrometer analysis (includes 200 sieve), each.....	\$265.00
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Specific gravity and absorption (aggregate), each.....	\$80.00
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Dry-rodded weight, each	\$35.00
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Decantation, each	\$35.00
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Organic impurities test on fine aggregate, each.....	\$35.00
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Los Angeles abrasion (excludes preparation), each	\$350.00
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Testing of each aggregate type for concrete mix design or verification (includes gradation, fineness modulus, absorption, specific gravity, dry-rodded weight, and decantation), each.....	\$350.00
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Concrete mix verification, each	\$350.00
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Additional verifications with same aggregates, each	\$125.00
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Concrete mix design

Regular aggregate, each.....	\$1,100.00
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Lightweight aggregate, each	\$1,250.00
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Additional mixes with same aggregates, each	\$400.00
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Compression testing of concrete cylinders

Made during field monitoring (includes reserves not tested), each	\$14.50
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FOB laboratory (signed hand written report, minimum of 4 cylinders), each	\$20.00
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FOB laboratory (signed typed report, minimum of 4 cylinders), each.....	\$28.00
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Flexural testing of concrete beams, each	\$40.00
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Moisture-density relationship, Standard or modified Proctor

Soil (4" and 6" mold), each	\$225.00
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Soil with gravel, base materials (6" mold), each	\$275.00
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Soil, base material with chemical admixtures (6" mold), each.....	\$325.00
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Relative density (maximum and minimum), each	\$225.00
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Density of undisturbed soil samples, each.....	\$11.50
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Laboratory CBR tests (excludes moisture-density Relationship), each	\$150.00
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Texas triaxial series, each set	\$1,500.00
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Testing of bituminous materials

Mixing and molding of specimens (set of 3)	\$175.00
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Molding specimens only (set of 3)	\$175.00
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Specific gravity (set of 3)	\$110.00
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Stability (set of 3)	\$110.00
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Extraction/Gradation.....	\$175.00
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Maximum theoretical specific gravity	\$110.00
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Preparation of samples/materials will be charged for all laboratory tests when applicable at (per hour)	\$55.00
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Reimbursable Expenses

Direct non-salary expenses incurred, identifiable and not applicable to general overhead are billed at cost plus 15 percent for handling and include, but are not limited to the following:

Travel, long distance calls, express charges, legal and accounting fees, computer time and programming costs, external consultants, word processing, CADD, printing and binding reports, blueprinting, photocopying, printing, photographs, environmental analytical and drilling fees, etc.

Note

A three (3) hour minimum charge for personnel and equipment is applicable to all trips made for the performance of testing, inspection or consulting services. The minimum charge is not applicable for trips to the project site for sample pick up only. All labor, equipment and transportation charges are billed on a portal to portal basis from our office.

Overtime rates of 1.5 times the quoted hourly rate will be applicable to any hours worked outside of our normal office hours of 7:00 AM to 6:00 PM Monday through Friday, and any hours worked on weekends, Terracon holidays or over eight (8) hours per day.

Expert testimony in depositions, hearings, mediation, and trials will be charged at 1.5 times the above rates.

The following assumptions were used in preparing our fee schedule:

- We have assumed that contractors on the site will work a single shift, five day week schedule;
- The contractor will schedule testing services with 24 hours notice (7:30 AM to 5:00 PM, Monday through Friday) unless the service is on a full time basis;
- Invoices for the project will be submitted on a monthly basis;
- Full time masonry inspections as specified in the plans,
- Services provided on Saturday, Sunday or Holidays will be invoiced at 1.5 times the applicable rate; and
- Services provided outside of regular business hours (7:00 AM to 5:00 PM, Monday through Friday) will be invoiced at 1.50 times the applicable rate.