



Corrosion Lab & Field Services by Corrosion Engineers

We offer competitive prices with **Maximum 5 day Turn-Around-Time (TAT)** on analysis and report. We understand your project needs to keep moving.

Comprehensive Corrosion series Package \$150/ soil sample

Samples are tested for Minimum Resistivity, Sulfate, Chloride, Sulfide, Redox, pH, Ammonia, Nitrate. Letter Report of results only signed and stamped by a licensed California Professional Engineer and NACE Corrosion Technologist.

Comprehensive Corrosion Evaluation Package \$150/ soil sample + \$1,200 Report

Report provides soil test results, corrosion probability, corrosion control recommendations along with expected corrosion rates of zinc, steel, and copper. The report is signed and stamped by a licensed California Professional Engineer and NACE Corrosion Technologist. We can collect samples for you. We need a minimum of three samples plus one per acre of the site from the depth of the infrastructure to be installed.

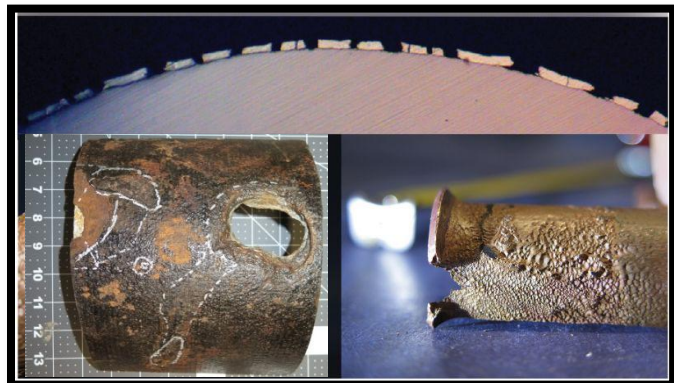
AWWA C105 10-point system Steel & Iron Package \$120/soil sample

Samples are tested for Resistivity, pH, Sulfide, Redox to determine the AWWA C105 point with data presented in a letter report of results only.

Recommendations for Collecting Representative Samples

We recommend a 1/2 gallon soil sample per acre be tested with a minimum of 3 samples for small lots. For residential developments, we recommend testing every 3rd lot for corrosion series to avoid future construction defect surprises. If this is for evaluating corrosion towards piles, concrete, and underground utilities, then we need samples from depths of 1 foot (most important for piles and concrete), 3 foot (for underground utilities and grounding wires), and 10 ft (for piles, very expansive soils, sewage, vaults, and storm drains), and ground water table information. If using helical anchors, we want to collect soil samples from the depth of the bottom of the anchor. With all of this information, we can be aware of the soil corrosivity at various strata for all materials thus providing the most accurate engineering information possible.

At Project X Corrosion Engineering, we specialize in testing soil and water corrosivity, investigating causes of corrosion, building inspection, corrosion control, and failure analysis. We help clients determine why they have a corrosion problem in the first place and what they can do to avoid corrosion problems in the future. We do not sell products or perform construction. We provide unbiased recommendations requiring the least amount of maintenance and cost. Customer service and reasonable turn around times are our priority.





A LA CARTE TESTING FEES. [Download Lab Request Form](#)

Method	Parameter	Rate
SM 2310 B	Acidity (Total as CaCO ₃)	\$25.00
SM 2320 B	Bicarbonate (Total as CaCO ₃)	\$25.00
SM 2320 B	Alkalinity (Total as CaCO ₃)	\$25.00
SM 4500-NH ₃	Ammonia – Nessler (NH ₃ -N)	\$25.00
HACH 830	Ammonia – Salicylate (NH ₃ -N)	\$25.00
ASTM D 512B	Chloride (CL ⁻)	\$20.00
AASHTO T 291	Chloride (CL ⁻)	\$20.00
Caltrans CTM 422	Chloride (CL ⁻)	\$20.00
SM 2510 B	Conductivity (mS/cm)	\$25.00
AASHTO T 288	Minimum Resistivity (ohm-cm)	\$40.00
Caltrans CTM 643	Minimum Resistivity (ohm-cm)	\$40.00
ASTM D 2216	Moisture Content & Density	\$20.00
SM 4500-NO ₃	Nitrate – Cadmium Reduc. (NO ₃ ⁻ -N)	\$25.00
HACH 835	Nitrate – Dimethylphenol (NO ₃ ⁻ -N)	\$25.00
ASTM G 51	pH (H ⁺)	\$20.00
AASHTO T 289	pH (H ⁺)	\$20.00
Caltrans CTM 643	pH (H ⁺)	\$20.00
SM 2580 B	Redox Potential (mV)	\$25.00
ASTM G 57 [4 pin method]	Resistivity – As Received & Saturated (ohm-cm)	\$40.00
ASTM G 187 [2 pin method]	Resistivity – As Received & Saturated (ohm-cm)	\$40.00
ASTM D516	Sulfate (SO ₄ ²⁻)	\$20.00
AASHTO T 290	Sulfate (SO ₄ ²⁻)	\$20.00
Caltrans CTM 417	Sulfate (SO ₄ ²⁻)	\$20.00
SM 4500-S ²	Sulfide (S ²⁻)	\$35.00
ASTM D 5334, IEEE 442-1981	Thermal Resistivity Dry-Out Curve (Three points = \$200+\$100+\$100) at Optimum Moisture%, ~50%, 0% moisture. \$100 per additional point. For Undisturbed samples; 4"(IEEE) or 8"(ASTM) height total needed, 2" minimum diameter.	\$400.00
ASTM D 698, D2216, D 2937	Soil remolding at optimum moisture and density	\$50.00
ASTM D-1126 HACH 8030	Calcium (Ca ⁺⁺)	\$20.00
ASTM D-1126 or HACH 8030	Total Hardness in Water	\$30.00
ASTM D5907	Total Dissolved Solids (TDS)	\$20.00
HACH 8033	Lead (Pb)	\$30.00
Water Corrosivity Report	Langelier (LSI), Ryzner (RSI), & Puckorius (PSI) Scaling Index results with interpretation	\$100.00



ADDITIONAL SERVICES:

- **Soil sample collection, coating adhesion testing, isolation joint testing, or corrosion surveys**, Southern California **site visit** cost depends on distance from site to Project X Corrosion office.
- **Soil Corrosivity and Corrosion Evaluation report** with corrosion control recommendations and estimated corrosion rates of materials \$1,200 per site or alignment. In order to provide the most comprehensive report, we recommend the \$150 per soil sample test package consisting of pH, Minimum Resistivity, Sulfate, Chloride, Sulfide, Ammonia, Nitrate, REDOX.
- **Wenner 4 pin soil resistivity tests** (2, 5, 10, 25, 50 ft spans) \$300 per location + travel to perform North-South and East-West line readings for sites without existing asphalt or underground utilities. (Includes data report with map) If asphalt or existing utilities exist, additional \$200 fee "for hole drilling per line" and \$200 fee for Underground Services (USA) research. *For pipeline alignments we recommend testing every 1000 ft to identify corrosive layers below ground.*
- **Soil thermal resistivity tests** \$200 for first point, \$100 each additional point for dry out curve. Require at least four(4) points for Dry Out Curve. \$50 remolding charge if needed using client specified optimal Moisture Content and Maximum Dry density. Minimum 4 inches tall, 2 inch diameter undisturbed sample rings.(includes data report)
- **In field soil thermal resistivity testing** in trench also possible. (\$200/reading + travel)
- **Anode Testing (Anode Wire continuity test)** \$425 fixed fee per 10 anodes, plus \$200 per additional 10 anodes. All anode wires should be disconnected before we arrive. (Includes PE Stamped letter report)



Fee Schedule

Forensic Engineer Eduardo Hernandez, PE / Principal Engineer	\$300/hr
Forensic Engineer Victor Medina, PE (Finite Element Analysis)	\$250/hr
Forensic Engineer Ernesto Padilla (Corrosion investigations)	\$250/hr
Forensic Engineer Josh Yanes (Accident Reconstruction/Arson)	\$250/hr
Senior Corrosion Engineer	\$200/hr
Project Manager	\$175/hr
Corrosion Engineer / CP Specialist	\$150/hr
Corrosion Field Technician	\$110/hr
Machining - Pipe Cutting	\$100/hr
Metallography- Failure Analysis	\$225/hr
Microbiologically Induced Corrosion Testing (MIC)	\$450 per sample received
NACE Coating Inspector	\$100/hr
Drafting	\$100/hr
Clerical / Technician	\$75/hr
Mileage	\$1/mile

Discount for early payment: Terms 5% discount if paid in full within 30 days.

All time is charged portal to portal from Murrieta. There is a 2-hour minimum for deposition, arbitration, and trial testimony. These rates apply to regular and travel time. Personnel time is billed in one-hour increments. Overtime for non-engineers will be charged at 1.5 times the above rates.

Meal and incidental expenses (M&IE) during travel will be charged as per diem per Federal Government CONUS rates. Permits, fees, and rental of special equipment will be charged at cost plus 15%.

Compensation for services performed will not be contingent upon the necessity of client to receive payment from other parties. All items stored on our premises are subject to a storage fee.

Effective 1/2017