March 21, 2025

ASTM Corrosivity Customer
Attn: Principal Engineer
1527 First Ave.
Greeley, CO 80631

Project No.: 1735284
Sample ID: B-1 to B-6 composite
Laboratory No.: E25999-6B

	Results[1,3]	**10-Point System**[2]
pH (SI) EPA 9045D (ASTM G51 available for some soil)	7.13	0
Conductivity (mmhos/cm)	0.100	NA
Resistivity (ohm-m)	100.00	
USDA Handbook 60, temperature corrected conductivity probe, corrected for extraction ratio		
Minimum Lab Resistivity (ohm-cm)	10200	0
Minimum Lab Resistivity (ohm-m) via Miller Box, Tinker & Razor SR-2 (ASTM G57)	102	
Redox (mV vs. Ag/AgCl) ASTM G200 (Hach 10228 if soil is low in moisture)	202	0
Free Sulfide (mg/kg DMB) EPA 9030B+9034, prescreened with lead acetate paper	2	3.5
Chloride (mg/kg DMB) ASTM D512 (Mohr Argentometric)	10.13	0
Sulfate (mg/kg DMB)	300.0	2
Sulfate-S (mg/kg DMB) ASTM C1580	100.0	

1. NA = Not Analyzed or Not Applicable. DMB = Dry Matter Basis. Measurements taken at 25°C.
2. 10-point Corrosion system based on: Appendix A of ANSI/AWWA C105/A21.5 Standard “Polyethylene Encasement for Ductile Iron Pipe Systems." The Cl- points based on [Cl-] in "Nature: Scientific Reports Volume 7, Article number: 6865 (2017)" Sulfate is penalized at half the rate of chloride: A. A. Sagüés et. al. (https://rosap.ntl.bts.gov/view/dot/17493)
3. pH, Conductivity, and Redox are generally read on a 1:1 soil:water mixture if the soil is dry.

Project Manager

Date