March 21, 2025

CDOT Corrosivity Customer
Attn: Manager
1527 First Ave.
Greeley, CO 80631

Project No.: West Solar
Sample ID: B-1 2.5-5'

Laboratory No.: E25999-4A	**Results**[1,3]	**10-Point System**[2]
pH (SI)	9.1	3
AASHTO T 289-91 (ASTM G51 available for some soil)		
Conductivity (mmhos/cm)	0.265	NA
Resistivity (ohm-m)	37.7	
USDA Handbook 60, temperature corrected conductivity probe		
Minimum Lab Resistivity (ohm-cm)	2410	2
Minimum Lab Resistivity (ohm-m)	24.1	
via Miller Box, Tinker & Razor SR-2 (AASHTO T 288-12)[4]		
Redox (mV vs. Ag/AgCl)	172	0
ASTM G200 (ASTM D1498 if soil is low in moisture)		
Free Sulfide (mg/kg DMB)	ND	0
EPA 9030B+9034, prescreened with lead acetate paper		
Chloride (mg/kg DMB)	32	0
CP-L 2104		
Chloride (% DMB)	0.0032	
Sulfate (mg/kg DMB)	570	3
CP-L 2103		
Sulfate (% DMB)	0.0570	
Sulfate-S (mg/kg DMB)	189.9	

1. NA = Not Analyzed; ND = Not Detected. 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 adapted from the DIPRA design decision model. 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.
4. ASTM G57 4-Electrode Method used unless 2-electrode method is requested.

Project Manager _____ Date _____