TORV
Sustainable Agronomics

September 26, 2022

The Broadmoor
One Lake Drive
Colorado Springs, CO 80906

Freddy and Michael,

Thank you for the opportunity to provide the OM246 testing for the East and the West courses. This is the first time this test has been done on the property. The graphics presented in the report are minimal. Once we conduct the test again, we will add a trendline and begin tracking the organic matter over time and determine if the averages are meeting your goals for playability and performance. Using this information can also help in making cultural decisions that may or may not be necessary. We can use some additional calculations for topdressing and known organic matter accumulation rates to help make those decisions. That makes these sample results valuable.

If you have any questions, please let me know.

Best,

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Executive Summary

Organic Matter

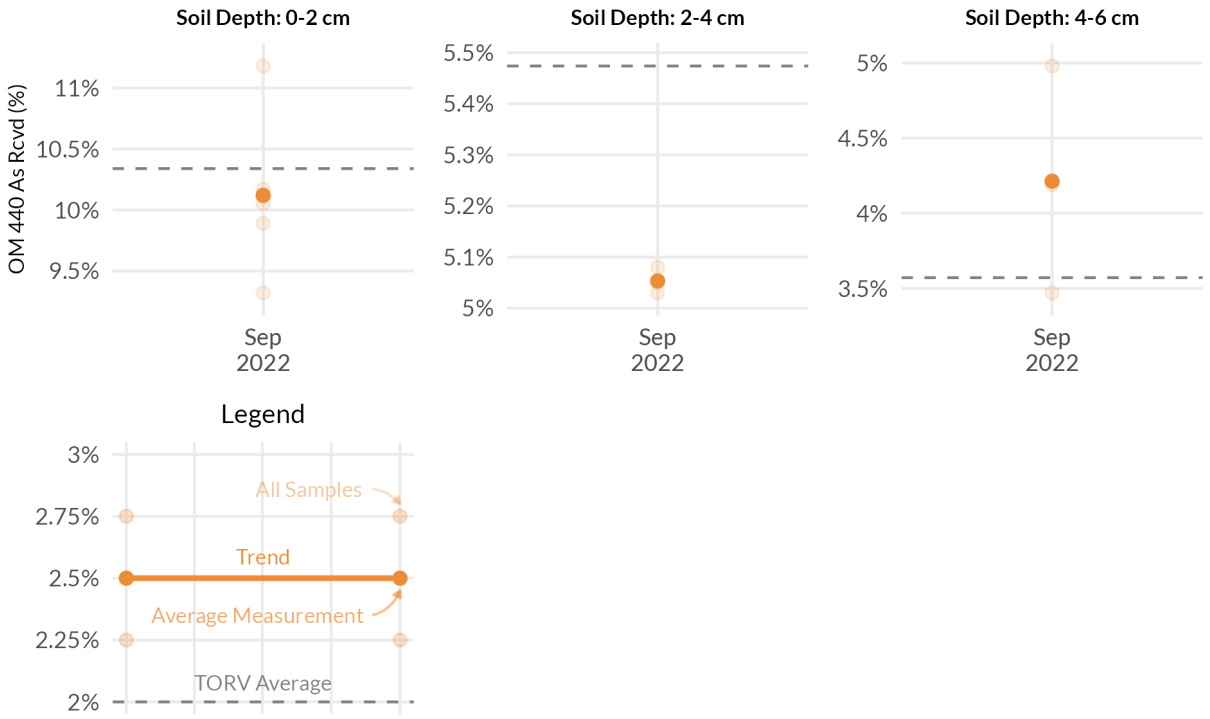
- The lab results represent the base line from which to make cultural decisions. Like calibrating a TDR measurement for soil moisture content based on subjective observations, the OM246 test should be thought of in the same context. Playability and overall green performance should be considered.
- The TORV average line in the graphics represent the average of all TORV clients for the represented depth.
- When the test is performed again, we will be able to:
  - Add a trendline visualizing how the OM% is trending.
  - Calculate the organic matter accumulated or lost over a known period.
  - Using a known amount of topdressing applied, we can estimate/calculate the amount of topdressing needed to maintain, increase, or decrease the organic matter.
  - Consider obtaining an accurate topdressing rate per year to make this calculation possible. What is the estimated depth of all topdressing applications applied this year?
  - The following web address will have a video from the USGA on how to calculate the depth along with the required conversion equations. https://www.asianturfgrass.com/post/sand-topdressing-by-depth/
  - Cultural decisions such as aerification, verticutting, topdressing amounts/frequency can be influenced by tracking organic matter over time and established goals for organic matter targets.
- The three different depths appear relatively consistent respective to their depth on the East course greens.
- West course greens show more variation in consistency respective to their depths.
- West course organic matter average totals are less than the East course organic matter totals.
- 10 and 11 West greens stood out as anomalies compared to the other greens with significantly less organic matter. From personal experience working there but having not seen it in recent time, my initial thought is the micro-climate (elevation and trees) having an effect. It may be worth giving additional thought as to why there is a large differential compared to the other greens.
- Testing annually at the same time is recommended.
- Testing in spring and again in fall is also common practice for many properties if that is of interst.

Organic Matter | GREEN

These measurements are neither good nor bad. Information such as fertilizer applied, cultural practices, sand applied, verti-cutting, aerification, etc. can be used to see how these practices have changed the OM% by depth. Ideally, once a desired OM% has been identified based on playability and turf performance, fertility and cultural practices can be adjusted to maintain the desired OM%.

The S325 test package includes the entire sample submitted. This includes leaves, stems, and roots. This differs from the standard soil test which filters out most of the components. This is the reason why the percentages appear higher than that on a standard soil test.

East Greens



BROOKSIDE LABORATORIES, INC.

** PHYSICAL ANALYSIS REPORT **

The Broadmoor
1320 W. Cheyenne Mountain Blvd.
Colorado Springs, CO 80906

File Number: 38925
Date Received: 09/21/2022
Date Reported: 09/23/2022

Submitted By: TORV, LLC

SAMPLE LOCATION: EAST GREEN

NBR	FIELD	DESCRIPTION	OM 440 As Rcvd (%)
001	4	0-2	10.11
002	4	2-4	5.08
003	4	4-6	3.47
004	11	0-2	9.32
005	11	2-4	5.05
006	11	4-6	4.98
007	13	0-2	11.18
008	13	2-4	5.03
009	13	4-6	4.19
010	6	0-2	10.05
011	17	0-2	9.89
012	18	0-2	10.17

Organic Matter | GREEN

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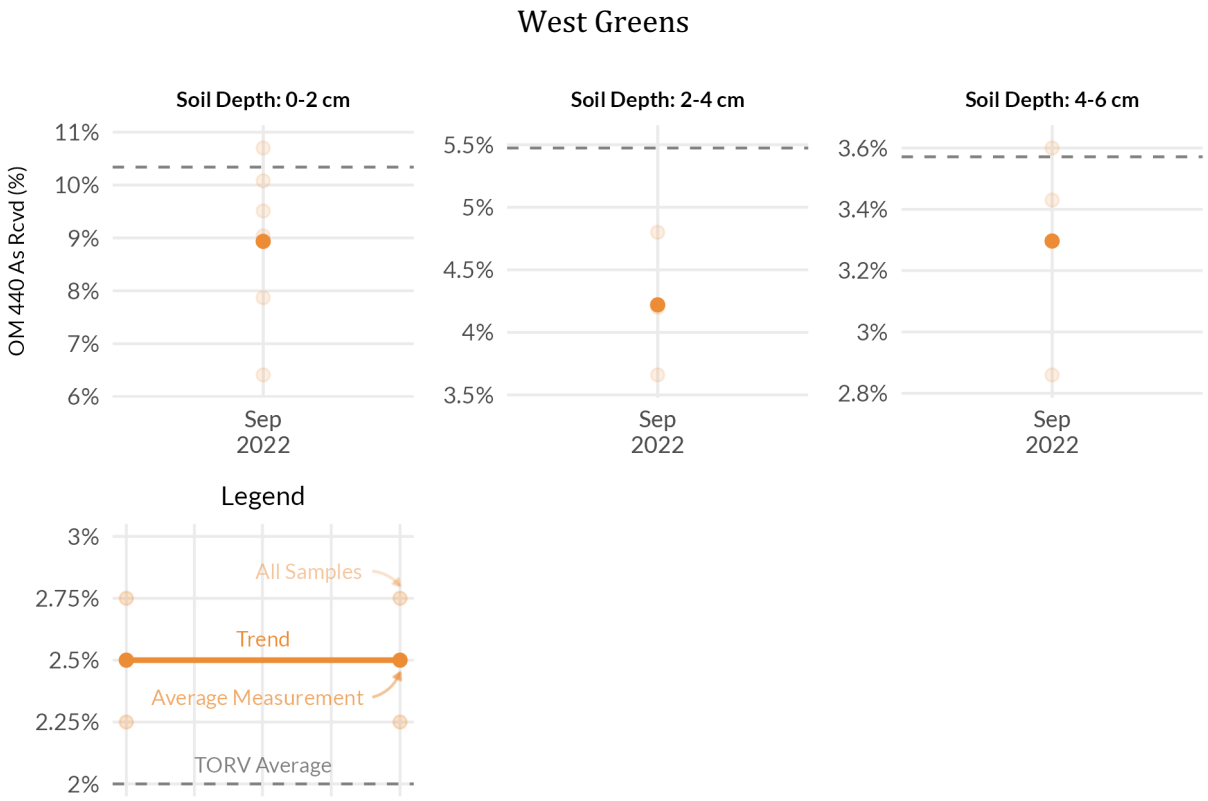

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File Number: 38925
Date Received: 09/21/2022
Date Reported: 09/23/2022

Submitted By: TORV, LLC

SAMPLE LOCATION: WEST GREEN

NBR	FIELD	DESCRIPTION	OM 440 As Rcvd (%)
013	11	0-2	7.87
014	15	0-2	10.70
015	18	0-2	9.51
016	3	0-2	9.04
017	3	2-4	4.20
018	3	4-6	3.43
019	7	0-2	10.08
020	7	2-4	4.80
021	7	4-6	3.60
022	10	0-2	6.41
023	10	2-4	3.66
024	10	4-6	2.86