

DAKOTA™

Report Number: LR09-002A

MATERIALS ANALYSIS REPORT



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Customer Name: **Pioneer Sand Company, Inc.** Date Sample Received: 1/14/2009
Customer Address: 5000 Northpark Drive Sample Description: **USGA Sand - FTL**
City, State, Zip Code: Colorado Springs, CO 80918 Sample Condition: Good 1.7 %M
Customer Telephone: 719-599-8100 Customer Fax:

Sample Description	Particle Size Analysis ⁽⁵⁾					Sand Size Distribution ^{(5), (b)}					Coefficient of Uniform. D60/D10
	% Sand	% Silt	% Clay	% Gravel (#10 sieve)	% Very Coarse (#18 sieve)	% Coarse (#35 sieve)	% Medium (#60 sieve)	% Fine (#100 sieve)	% Very Fine ^(c) (#140 sieve) (#270 sieve)		
USGA Recommendation	>92 %	≤ 5%	≤ 3%	≤ 3% gravel ≤ 10% combined		> 60 %		≤ 20%	≤ 5%		---
USGA Sand - FTL	99.2	0.68	0.13	0.13	3.56	39.3	39.3	13.1	2.95	1.03	2.65
	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	

Particle Shape ⁽⁵⁾	
Angularity	Sphericity
Sub-angular/Sub-round	Medium
OK	OK



pH= 6.4

This report applies only to the sample(s) tested. Samples are maintained a maximum of thirty days before disposal. This test report contains confidential information and shall not be reproduced except in full, and with the express written approval of DAKOTA. All tests are performed according to USGA guidelines and ASTM methods. DAKOTA is not responsible for the accuracy of these test methods and makes no claims about their ability to predict performance in actual use.

(1) ASTM F1815, (2) Soil EC 1:2 soil H2O ratio method,
(3) ASTM F1647, (4) ASTM D4972, (5) ASTM 1632,
(6) ASTM D2974, (7) ASTM D2976, (8) ASTM C136,
(a) determined at 30 cm tension, (b) % retained on sieve,
(c) as defined by USGA specifications

Member of the Putting Greens Materials Testing Technical Advisory Committee
Member of USGA Proficiency Testing Program

ALL IN-HOUSE REFERENCE MATERIALS TESTED WITHIN LIMITS X YES ___ NO - EXPLAIN
ASTM Methods: C136, D421, D2974, D2976, D4972, F1632, F1647, F1815
Ksat adjusted to 8%M. *This test result is not covered by our current A2LA accreditation.

Comment:

By: *Diane K. Kuehl* Date: 1/19/2009 Title: Lab Manager

