

Report Transmission Cover Page

Bill To: The Black Dirt Company Box 3130 Spruce Grove, AB, Canada T7X 3A5	Project ID: Project Name: Project Location: LSD: P.O.:	Lot ID: 1644520 Control Number: Date Received: Apr 17, 2023 Date Reported: Apr 30, 2023 Report Number: 2862715
Attn: Accounts Payable Sampled By: RYAN TOWNSEND Company: THE BLACK DIRT COMPANY	Proj. Acct. code:	

Contact	Company	Address
Accounts Payable	The Black Dirt Company	Box 3130 Spruce Grove, AB T7X 3A5 Phone: (780) 962-8220 Fax: (780) 962-8215 Email: info@blackdirtcompany.com

Delivery	Format	Deliverables
Email - Merge	PDF	COC / Invoice

Contact	Company	Address
Charlene Hinkel	The Black Dirt Company	300 Saskatchewan Ave Spruce Grove, AB Phone: (780) 962-8220 Fax: (780) 962-8215 Email: charlene.hinkel@blackdirtcompany.com

Delivery	Format	Deliverables
Email	PDF	COC / Test Report
Email	Standard Crosstab With Tabs	Test Report
Email - Merge	PDF	COA
Email - Merge	PDF	COC / Invoice

Notes To Clients:

- Apr 21, 2023 - Clubroot and Seed Soil Count analysis was performed by a subcontract laboratory. See attached 4 page report 1158181, 1158182, 1158189, 1158182.

Analytical Report

Bill To: The Black Dirt Company
Box 3130
Spruce Grove, AB, Canada
T7X 3A5
Attn: Accounts Payable
Sampled By: RYAN TOWNSEND
Company: THE BLACK DIRT COMPANY

Project ID:
Project Name:
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1644520**
Control Number:
Date Received: Apr 17, 2023
Date Reported: Apr 30, 2023
Report Number: 2862715

Reference Number 1644520-3
Sample Date Apr 17, 2023
Sample Time NA
Sample Location
Sample Description FAIRWAYS /
TOPSOIL
Matrix Soil

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Classification					
Organic Matter	Calculated Value	%	3.94		0.04
Carbon	Total Organic	%	1.97		0.04
Metals Strong Acid Digestion					
Antimony	Strong Acid Extractable	mg/kg	0.3		0.2
Arsenic	Strong Acid Extractable	mg/kg	6.2		0.2
Barium	Strong Acid Extractable	mg/kg	126		1
Beryllium	Strong Acid Extractable	mg/kg	0.4		0.1
Cadmium	Strong Acid Extractable	mg/kg	0.14		0.01
Chromium	Strong Acid Extractable	mg/kg	10.5		0.5
Cobalt	Strong Acid Extractable	mg/kg	7.5		0.1
Copper	Strong Acid Extractable	mg/kg	10.1		1
Lead	Strong Acid Extractable	mg/kg	7.9		0.1
Mercury	Strong Acid Extractable	mg/kg	0.05		0.05
Molybdenum	Strong Acid Extractable	mg/kg	<1.0		1
Nickel	Strong Acid Extractable	mg/kg	16.2		0.5
Selenium	Strong Acid Extractable	mg/kg	<0.29		0.3
Silver	Strong Acid Extractable	mg/kg	<0.10		0.1
Thallium	Strong Acid Extractable	mg/kg	0.13		0.05
Tin	Strong Acid Extractable	mg/kg	<1.0		1
Uranium	Strong Acid Extractable	mg/kg	0.7		0.5
Vanadium	Strong Acid Extractable	mg/kg	17.6		0.1
Zinc	Strong Acid Extractable	mg/kg	52		1
Physical and Aggregate Properties					
Texture			Loam		
Sand	50 µm - 2 mm	% by weight	44		0.1
Silt	2 µm - 50 µm	% by weight	36		0.1
Clay	<2 µm	% by weight	20		0.1
Salinity					
Electrical Conductivity	Saturated Paste	dS/m	0.42		0.01
SAR	Saturated Paste		0.3		
% Saturation		%	77		
Calcium	Saturated Paste	mg/kg	47.6		
Magnesium	Saturated Paste	mg/kg	7.7		
Sodium	Saturated Paste	mg/kg	6		
Potassium	Saturated Paste	mg/kg	4		
Chloride	Saturated Paste	mg/L	13		3
Chloride	Saturated Paste	mg/kg	10		
Sulfate (SO4)	Saturated Paste	mg/kg	57.6		

Analytical Report

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Company: THE BLACK DIRT COMPANY

Project ID:
Project Name:
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LSD:
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Lot ID: **1644520**
Control Number:
Date Received: Apr 17, 2023
Date Reported: Apr 30, 2023
Report Number: 2862715

Reference Number 1644520-3
Sample Date Apr 17, 2023
Sample Time NA
Sample Location
Sample Description FAIRWAYS /
TOPSOIL
Matrix Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Salinity - Continued						
Boron	Saturated Paste	mg/L	0.09			0.05
TGR	Saturated Paste	T/ac	<0.1			
Soil Acidity						
pH	1:2 Soil:Water	pH	7.0			
pH	1:2 Soil:CaCl2 sol.	pH	7.0			
Electrical Conductivity	1:2 Soil:Water	dS/m at 25 °C	0.24			0.01
CCE	as CaCO3	%	0.27			0.2
Water Soluble Parameters						
Chromium (VI)	Dry Weight	mg/kg	<0.05			0.05
Subcontracted Analysis						
Subcontractor Report Id	Biovision		1158181			

Approved by:



Benjamin Morris, B.Sc
Operations Manager

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).

Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

Methodology and Notes

Bill To: The Black Dirt Company Box 3130 Spruce Grove, AB, Canada T7X 3A5	Project ID: Project Name: Project Location: LSD: P.O.:	Lot ID: 1644520 Control Number: Date Received: Apr 17, 2023 Date Reported: Apr 30, 2023 Report Number: 2862715
Attn: Accounts Payable Sampled By: RYAN TOWNSEND Company: THE BLACK DIRT COMPANY	Proj. Acct. code:	

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
1:5 Water Soluble Extraction	APHA	* Colorimetric Method, 3500-Cr B	Apr 18, 2023	Element Edmonton - Roper Road
1:5 Water Soluble Extraction	McKeague	* Soluble Salts in Extracts of 1:5 Soil:Water Mixtures, 3.23	Apr 18, 2023	Element Edmonton - Roper Road
Calcium Carbonate in Soil (Dual pH)	Comm. Soil Sci. Pl. Anal.	* Improvement to Two Routine Methods for CaCO ₃ in Soil, Vol 28, 1997	Apr 18, 2023	Element Edmonton - Roper Road
Metals ICP (Hot Block) in soil	EPA	* Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements, October 1999, 200.2	Apr 18, 2023	Element Edmonton - Roper Road
Metals ICP (Hot Block) in soil	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Apr 18, 2023	Element Edmonton - Roper Road
Particle Size Analysis - GS	Carter	* Hydrometer Method, 55.3	Apr 17, 2023	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	McKeague	* 1:2 Soil:Water Ratio, 4.12	Apr 18, 2023	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	Soil & Environ. Anal.	* Particle Size Analysis, Direct Method, Chapter 7	Apr 18, 2023	Element Edmonton - Roper Road
pH by CaCl ₂ (1:2 ratio) in soil	McKeague	* pH in 0.01M Calcium Chloride, 3.11	Apr 18, 2023	Element Edmonton - Roper Road
Saturated Paste in General Soil	APHA	* Automated Ferricyanide Method, 4500-Cl-E	Apr 17, 2023	Element Edmonton - Roper Road
Saturated Paste in General Soil	Carter	* Electrical Conductivity and Soluble Ions, Chapter 15	Apr 17, 2023	Element Edmonton - Roper Road
Sublet to Biovision	Ext. Lab	See attached test report,	Apr 18, 2023	SGS Biovision
Total Carbon, Nitrogen in Soil by Leco Combustion (VAN)	SSSA Book Series 5	* Total Carbon, Organic Carbon, and Organic Matter, Ch 34	Apr 24, 2023	Element Vancouver

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
Carter	Soil Sampling and Methods of Analysis.
Comm. Soil Sci. Pl.	Communications in Soil Science and Plant Analysis
EPA	Environmental Protection Agency Test Methods - US
Ext. Lab	External Laboratory
McKeague	Manual on Soil Sampling and Methods of Analysis
Soil & Environ. Anal.	Soil and Environmental Analysis: Physical Methods
SSSA Book Series 5	Methods of Soil Analysis, Part 3
US EPA	US Environmental Protection Agency Test Methods

Comments:

- Apr 21, 2023 - Clubroot and Seed Soil Count analysis was performed by a subcontract laboratory. See attached 4 page report 1158181, 1158182, 1158189, 1158182.

Methodology and Notes

Bill To: The Black Dirt Company	Project ID:	Lot ID: 1644520
Box 3130	Project Name:	Control Number:
Spruce Grove, AB, Canada	Project Location:	Date Received: Apr 17, 2023
T7X 3A5	LSD:	Date Reported: Apr 30, 2023
Attn: Accounts Payable	P.O.:	Report Number: 2862715
Sampled By: RYAN TOWNSEND	Proj. Acct. code:	
Company: THE BLACK DIRT COMPANY		

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

Submitted By:
 Element (Edm)
 7217 Roper Road NW
 Edmonton, AB CA T6B 3J4
 P 780.438.5522

Tested By: SGS Canada Inc.
 Unit 310, 280 Portage Close
 Sherwood Park, Alberta T8H 2R6
 P 1 (780) 436-8822
 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC142993
Sample ID: 1644520-1, Peavey Mart Topsoil

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/20/2023	Method	OTH
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- Goosefoot 4
- Lamb's-quarters 4
- Stinkweed 3
- Canada Thistle 2
- Yellow Nutsedge 1
- Water Foxtail 1

*Clubroot Pathogen (DNA)	Completed: 4/21/2023	Method	OTH
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Plasmodiophora brassicae (DNA) Not Detected (LOD: 1000 Spores per gram soil)

1. Method(s) used for promoting germination of dormant seed

*Advisory test -- Method not CFIA M&P prescribed

**Accredited by CFIA to conduct tests in accordance with the laboratory's scope of accreditation and the Canadian Methods and Procedures for Testing Seed

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 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC142993
Sample ID: 1644520-2, West Wind Topsoil

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/20/2023		Method OTH
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None Found 0

*Clubroot Pathogen (DNA)	Completed: 4/21/2023		Method OTH
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Plasmodiophora brassicae (DNA) Not Detected (LOD: 1000 Spores per gram soil)

1. Method(s) used for promoting germination of dormant seed *Advisory test -- Method not CFIA M&P prescribed **Accredited by CFIA to conduct tests in accordance with the laboratory's scope of accreditation and the Canadian Methods and Procedures for Testing Seed
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Submitted By:
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Tested By: SGS Canada Inc.
 Unit 310, 280 Portage Close
 Sherwood Park, Alberta T8H 2R6
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 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC142993
Sample ID: 1644520-3, Fairways Topsoil

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/20/2023		Method OTH
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Lamb's-quarters 1

*Clubroot Pathogen (DNA)	Completed: 4/21/2023		Method OTH
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Plasmodiophora brassicae (DNA) Not Detected (LOD: 1000 Spores per gram soil)

1. Method(s) used for promoting germination of dormant seed

*Advisory test -- Method not CFIA M&P prescribed

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Submitted By:
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 7217 Roper Road NW
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 P 780.438.5522

Tested By: SGS Canada Inc.
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 Sherwood Park, Alberta T8H 2R6
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 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC142993
Sample ID: 1644520-4, RR 265 Garden Mix

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 4/20/2023	Method	OTH
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Chickweed 3
 Stinkweed 1
 Papaver (Poppy) spp. 9
 Lamb's-quarters 2

*Clubroot Pathogen (DNA)	Completed: 4/21/2023	Method	OTH
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Plasmodiophora brassicae (DNA) Not Detected (LOD: 1000 Spores per gram soil)

1. Method(s) used for promoting germination of dormant seed *Advisory test -- Method not CFIA M&P prescribed **Accredited by CFIA to conduct tests in accordance with the laboratory's scope of accreditation and the Canadian Methods and Procedures for Testing Seed
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