

Report Transmission Cover Page

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project ID: Project Name: Project Location:	Lot ID: 1570367 Control Number: Date Received: May 10, 2022 Date Reported: May 25, 2022 Report Number: 2746664
Attn: Charlene Hinkel Sampled By: Ryan Townsend Company: The Black Dirt Company	LSD: P.O.: 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 - Single Report	PDF	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 - Merge Reports	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	PDF	Invoice

Notes To Clients:

- May 11, 2022 - Seed analysis was performed by a subcontract laboratory. See attached 8 page report 1136260-01, 1136261-01, 1136262-01, 1136263-01, 1136264-01, 11361265-01, 1136266-01 & 1136267-01

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Analytical Report

Bill To: The Black Dirt Company 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project ID: Project Name: Project Location:	Lot ID: 1570367 Control Number: Date Received: May 10, 2022 Date Reported: May 25, 2022 Report Number: 2746664
Attn: Charlene Hinkel Sampled By: Ryan Townsend Company: The Black Dirt Company	LSD: P.O.: Proj. Acct. code:	

Reference Number 1570367-3
Sample Date May 09, 2022
Sample Time NA
Sample Location
Sample Description RR11 / Sand

Matrix Soil

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Digestion					
Boron	Saturated Paste	mg/L	<0.05		0.05
Antimony	Strong Acid Extractable	mg/kg	0.2		0.2
Arsenic	Strong Acid Extractable	mg/kg	5.5		0.2
Barium	Strong Acid Extractable	mg/kg	98		1
Beryllium	Strong Acid Extractable	mg/kg	0.2		0.1
Cadmium	Strong Acid Extractable	mg/kg	0.14		0.01
Chromium	Strong Acid Extractable	mg/kg	6.6		0.5
Cobalt	Strong Acid Extractable	mg/kg	5.6		0.1
Copper	Strong Acid Extractable	mg/kg	6.0		1
Lead	Strong Acid Extractable	mg/kg	5.1		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	13.8		0.5
Selenium	Strong Acid Extractable	mg/kg	<0.3		0.3
Silver	Strong Acid Extractable	mg/kg	<0.10		0.1
Thallium	Strong Acid Extractable	mg/kg	0.11		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	11.0		0.1
Zinc	Strong Acid Extractable	mg/kg	42		1
Physical and Aggregate Properties					
Texture			Sandy Loam		
Sand	50 µm - 2 mm	% by weight	67		0.1
Silt	2 µm - 50 µm	% by weight	27		0.1
Clay	<2 µm	% by weight	6		0.1
Salinity					
Electrical Conductivity	Saturated Paste	dS/m	0.21		0.01
SAR	Saturated Paste		0.2		
% Saturation		%	43		
Calcium	Saturated Paste	mg/kg	11.0		
Magnesium	Saturated Paste	mg/kg	1.8		
Sodium	Saturated Paste	mg/kg	2		
Potassium	Saturated Paste	mg/kg	1		
Chloride	Saturated Paste	mg/L	4		3
Chloride	Saturated Paste	mg/kg	2		
Sulfate (SO4)	Saturated Paste	mg/kg	3.2		
TGR	Saturated Paste	T/ac	<0.1		
Soil Acidity					
pH	1:2 Soil:Water	pH	8.4		

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Attn: Charlene Hinkel
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Company: The Black Dirt Company

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

Lot ID: **1570367**
Control Number:
Date Received: May 10, 2022
Date Reported: May 25, 2022
Report Number: 2746664

Reference Number 1570367-3
Sample Date May 09, 2022
Sample Time NA
Sample Location
Sample Description RR11 / Sand
Matrix Soil

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Soil Acidity - Continued					
pH	1:2 Soil:CaCl2 sol.	pH	7.6		
Electrical Conductivity	1:2 Soil:Water	dS/m at 25 °C	0.11		0.01
Water Soluble Parameters					
Chromium (VI)	Dry Weight	mg/kg	<0.05		0.05
Clubroot Analysis					
Plasmodiophora brassicae	Clubroot Pathogen	spores/g	<1000		1000
Plasmodiophora brassicae	Detected/ Not Detected	spores/g	Not Detected		1000
Subcontracted Analysis					
Subcontractor Report Id	Biovision		1136262-01		

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 300 Saskatchewan Ave Spruce Grove, AB, Canada	Project ID: Project Name: Project Location:	Lot ID: 1570367
Attn: Charlene Hinkel	LSD:	Control Number:
Sampled By: Ryan Townsend	P.O.:	Date Received: May 10, 2022
Company: The Black Dirt Company	Proj. Acct. code:	Date Reported: May 25, 2022
		Report Number: 2746664

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
1:5 Water Soluble Extraction	APHA	* Colorimetric Method, 3500-Cr B	May 11, 2022	Element Edmonton - Roper Road
1:5 Water Soluble Extraction	McKeague	* Soluble Salts in Extracts of 1:5 Soil:Water Mixtures, 3.23	May 11, 2022	Element Edmonton - Roper Road
Clubroot	Plant Path	* Wallenhammer et al 2012. In-Field distribution of Plasmodiophora brassicae measured using real-time PCR., Plant Pathology	May 18, 2022	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	May 11, 2022	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	May 11, 2022	Element Edmonton - Roper Road
Particle Size Analysis - GS	Carter	* Hydrometer Method, 55.3	May 12, 2022	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	McKeague	* 1:2 Soil:Water Ratio, 4.12	May 11, 2022	Element Edmonton - Roper Road
pH and Conductivity in general soil 1:2	Soil & Environ. Anal.	* Particle Size Analysis, Direct Method, Chapter 7	May 11, 2022	Element Edmonton - Roper Road
pH by CaCl2 (1:2 ratio) in soil	McKeague	* pH in 0.01M Calcium Chloride, 3.11	May 11, 2022	Element Edmonton - Roper Road
Saturated Paste in General Soil	APHA	* Automated Ferricyanide Method, 4500-Cl-E	May 11, 2022	Element Edmonton - Roper Road
Saturated Paste in General Soil	Carter	* Electrical Conductivity and Soluble Ions, Chapter 15	May 11, 2022	Element Edmonton - Roper Road
Sublet to Biovision	Ext. Lab	See attached test report,	May 10, 2022	SGS Biovision

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
Carter	Soil Sampling and Methods of Analysis.
EPA	Environmental Protection Agency Test Methods - US
Ext. Lab	External Laboratory
McKeague	Manual on Soil Sampling and Methods of Analysis
Plant Path	Plant Pathology
Soil & Environ. Anal.	Soil and Environmental Analysis: Physical Methods
US EPA	US Environmental Protection Agency Test Methods

Comments:

- May 11, 2022 - Seed analysis was performed by a subcontract laboratory. See attached 8 page report 1136260-01, 1136261-01, 1136262-01, 1136263-01, 1136264-01, 11361265-01, 1136266-01 & 1136267-01

Methodology and Notes

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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: POC137196
Sample ID: 1570367-1

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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None Found 0

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: POC137196
Sample ID: 1570367-2

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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None Found 0

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

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

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Professional Member



Sample of: Soil
Designated: POC137196
Sample ID: 1570367-3

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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None Found 0

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

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

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Professional Member



Sample of: Soil
Designated: POC137196
Sample ID: 1570367-4

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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Lamb's-quarters 1

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

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

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 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: POC137196
Sample ID: 1570367-5

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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Bullrush 2
 Goosefoot 1

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

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

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 P 780.438.5522

Tested By: SGS Canada Inc.
 Unit 310, 280 Portage Close
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 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC137196
Sample ID: 1570367-6

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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- Cinquefoil 76
- Lamb's-quarters 13
- Chickweed 12
- Green Foxtail 5
- Stinkweed 4
- Geranium 2
- Perennial Sow Thistle 1

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

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

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 P 1 (780) 436-8822
 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC137196
Sample ID: 1570367-7

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
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None Found 0

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

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

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 Unit 310, 280 Portage Close
 Sherwood Park, Alberta T8H 2R6
 P 1 (780) 436-8822
 ** CFIA Acc #1172

Professional Member



Sample of: Soil
Designated: POC137196
Sample ID: 1570367-8

REPORT OF ANALYSIS

*Soil Seed Analysis 50g	Completed: 5/11/2022	Method	OTH
--------------------------------	----------------------	--------	------------

Lamb's-quarters 4
 Night-flowering Catchfly 1

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

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Project ID:
Project Name:
Project Location:
Legal Location:
PO/A/E#:
Proj. Acct. Code:
Quote #:

Company: The Black Dirt Company
Address: 300 Saskatchewan Avenue
Attention: Charlene Hinkel
Phone: 780-962-8220
Cell: 780-616-3566
Fax: 780-962-8215
E-mail: charlene.hinkel@blackdirtcompany.com
Agreement ID:
Copy of Report: YES / NO

Company: The Black Dirt Company
Address: 300 Saskatchewan Avenue
Attention: Charlene Hinkel
Phone: 780-962-8220
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E-mail: charlene.hinkel@blackdirtcompany.com
E-mail 2: info@blackdirtcompany.com
Copy of Invoice: YES / NO

Company: The Black Dirt Company
Address: 300 Saskatchewan Avenue
Attention: Charlene Hinkel
Phone: 780-962-8220
Cell: 780-616-3566
Fax: 780-962-8215
E-mail: charlene.hinkel@blackdirtcompany.com
E-mail 2: info@blackdirtcompany.com
Copy of Invoice: YES / NO

1) Name:
E-mail:
2) Name:
E-mail:
Sampled by: Ryan Townsend
Company: The Black Dirt Company
I authorize Element to proceed with the work indicated on this form:
Signature: [Signature]
Date/Time: 9 May 2022

RUSH Priority

- Same Day (200%)
Next Day/Two Day (100%)
Three or Four Days (50%)
5 to 7 Days (Regular TAT)

When "ASAP" is requested, turn around will default to a 100% RUSH priority, with pricing and turn around time to match. Please contact the lab prior to submitting RUSH samples. If not all samples require RUSH, please indicate in the special instructions.

Report Results

- Email
Online
Fax
QA/QC
PDF
Excel

Requirements

- HCDWORG
AB Tier 1
Other (list below)
SPIGEC
BCCSR

Date Required

Special Instructions/Comments (please include contact information including phone number if different from above).

Please report samples separately.

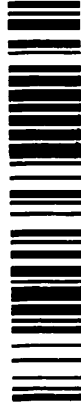
Table with columns: Site I.D., Sample Description, Depth start/end in cm, Date/Time sampled, Matrix, Sampling method, MeOH Field Preserved?, Number of Containers, Physical/Aggregate Properties, Metals/Strong Acid Digestion, Soil Acidity, Water Soluble Parameters, Club Root Analysis, Seed Count. Includes 15 rows of sample data.

Please indicate any potentially hazardous samples

Submission of this form acknowledges acceptance of Element's Standard of terms and conditions (https://www.element.com/terms/terms-and-conditions)

Indicate Int # or affix barcode here

Lot: 1570367 COC



Page 1 of 1 Control # ED 120-005

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Report To

Additional Reports to