7217 Roper Road NW Edmonton, Alberta T6B 3J4, Canada

T: +1 (780) 438-5522 F: +1 (780) 434-8586 E: Edmonton@exova.com W: www.exova.com



Report Transmission Cover Page

Bill To: The Black Dirt Company

Project: 300 Saskatchewan Ave ID:

Spruce Grove, AB, Canada Name:

> Location: LSD:

Attn: Charlene Hinkel Sampled By: P.O.:

Company: Acct code: Lot ID: 1207263

Control Number: C0084827 Date Received: Jun 9, 2017

Date Reported: Jun 20, 2017 Report Number: 2197089

Contact & Affiliation	Address	Delivery Commitments
Charlene Hinkel	300 Saskatchewan Ave,	On [Lot Verification] send
The Black Dirt Company	Spruce Grove, Alberta	(COA) by Email - Single Report
	Phone: (780) 962-8220 Fax: (780) 962-8215	On [Report Approval] send
	Email:	(Test Report, COC) by Email - Merge Reports
	charlene.hinkel@blackdirtcompany.com	On [Lot Approval and Final Test Report Approval] send
		(Invoice) by Email - Single Report

Notes To Clients:

• Weed Seed analysis was performed by a subcontract laboratory. See attached one page report ROA1026941-01.

Page 1 of 4 Exovo

Analytical Report

Bill To: The Black Dirt Company

Project: 300 Saskatchewan Ave ID:

Spruce Grove, AB, Canada Name:

Location:

LSD: Attn: Charlene Hinkel

Sampled By: P.O.:

Company: Acct code: Lot ID: 1207263

Control Number: C0084827

Date Received: Jun 9, 2017 Jun 20, 2017 Date Reported:

Report Number: 2197089

Reference Number 1207263-1 1207263-2 1207263-3

Sample Date Sample Time **Sample Location**

Sample Description Boundary Field Garden Mix

Grove Drive Topsoil

Boundary Field Topsoil

		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Digest	ion					
Boron	Saturated Paste	mg/L	<0.5	0.15	0.24	0.05
Antimony	Strong Acid Extractable	mg/kg	0.2	0.3	0.2	0.2
Arsenic	Strong Acid Extractable	mg/kg	4.6	8.9	5.5	0.2
Barium	Strong Acid Extractable	mg/kg	95	166	137	1
Beryllium	Strong Acid Extractable	mg/kg	0.3	0.7	0.3	0.1
Cadmium	Strong Acid Extractable	mg/kg	0.22	0.25	0.39	0.01
Chromium	Strong Acid Extractable	mg/kg	6.7	14.7	8.5	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.9	8.9	6.4	0.1
Copper	Strong Acid Extractable	mg/kg	17.3	16.8	20.7	1
Lead	Strong Acid Extractable	mg/kg	5.0	10.4	6.7	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Molybdenum	Strong Acid Extractable	mg/kg	<1.0	<1.0	<1.0	1
Nickel	Strong Acid Extractable	mg/kg	9.7	21.3	13.3	0.5
Selenium	Strong Acid Extractable	mg/kg	0.3	0.7	0.4	0.3
Silver	Strong Acid Extractable	mg/kg	<0.1	0.1	<0.1	0.1
Thallium	Strong Acid Extractable	mg/kg	0.08	0.15	0.11	0.05
Tin	Strong Acid Extractable	mg/kg	<1.0	<1.0	<1.0	1
Uranium	Strong Acid Extractable	mg/kg	0.6	1.7	0.6	0.5
Vanadium	Strong Acid Extractable	mg/kg	12.3	26.2	16.3	0.1
Zinc	Strong Acid Extractable	mg/kg	51	79	70	1
Physical and Aggregate Pr	roperties					
Texture			Sandy Loam	Loam	Sandy Loam	
Sand	50 μm - 2 mm	% by weight	70	25	62	0.1
Silt	2 μm - 50 μm	% by weight	21	49	28	0.1
Clay	<2 µm	% by weight	9	26	10	0.1
Salinity						
% Saturation		%	60	68	56	
Soil Acidity						
pH	1:2 Soil:Water	pН	6.7	7.3	5.0	
Electrical Conductivity	1:2 Soil:Water	dS/m at 25 °C	1.42	0.37	0.14	0.01
Water Soluble Parameters						
Chromium (VI)	Dry Weight	mg/kg	<0.1	<0.1	<0.1	0.1
Clubroot Analysis						
Plasmodiophora brassicae	Clubroot Pathogen	spores/g	<1000	<1000	<1000	1000

7217 Roper Road NW Edmonton, Alberta T6B 3J4, Canada

T: +1 (780) 438-5522 F: +1 (780) 434-8586 E: Edmonton@exova.com W: www.exova.com



Analytical Report

Bill To: The Black Dirt Company Project: Lot ID: 1207263

300 Saskatchewan Ave ID: Control Number: C0084827 Spruce Grove, AB, Canada Name: Date Received: Jun 9, 2017 Location: Date Reported: Jun 20, 2017

Attn: Charlene Hinkel LSD: Report Number: 2197089 Sampled By: P.O.:

Company: Acct code:

> **Reference Number** 1207263-1 1207263-2 1207263-3

Sample Date Sample Time **Sample Location**

Sample Description Boundary Field Boundary Field Grove Drive Topsoil

Garden Mix Topsoil

> Matrix Soil Soil Soil

Nominal Detection Units Analyte Results Results Results Limit **Subcontracted Analysis**

Subcontractor Report Id 1026939-01 1026940-01 1026941-01 Biovision

Approved by:

Anthony Neumann, MSc Laboratory Operations Manager

Anthony Weuman

 Exova
 T: +1 (780) 438-5522

 7217 Roper Road NW
 F: +1 (780) 434-8586

 Edmonton, Alberta
 E: Edmonton@exova.com

 T6B 3J4, Canada
 W: www.exova.com



Methodology and Notes

Bill To: The Black Dirt Company Project: Lot ID: 1207263

300 Saskatchewan Ave ID: Control Number: C0084827
Spruce Grove, AB, Canada Name: Date Received: Jun 9, 2017
Location: Date Reported: Jun 20, 2017

Attn: Charlene Hinkel LSD: Report Number: 2197089
Sampled By: P.O.:

Company: Acct code:

Method of Analysis				
Method Name	Reference	Method	Date Analysis Started	Location
1:5 Water Soluble Extraction	APHA	* Colorimetric Method, 3500-Cr B	12-Jun-17	Exova Edmonton
1:5 Water Soluble Extraction	McKeague	 Soluble Salts in Extracts of 1:5 Soil:Washington Mixtures, 3.23 	ater 12-Jun-17	Exova Edmonton
Clubroot	Plant Path	 Wallenhammer et al 2011. In-Field distribution of Plasmodiophora brassic measured using real-time PCR., Plant Pathology 		Exova Edmonton
Metals ICP (Hot Block) in soil	EPA	 * Sample Preparation Procedure for Spectrochemical Determination of Tot Recoverable Elements, October 1999, 200.2 		Exova Edmonton
Metals ICP (Hot Block) in soil	US EPA	 Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8 	12-Jun-17	Exova Edmonton
Particle Size Analysis - GS	Carter	* Hydrometer Method, 55.3	12-Jun-17	Exova Edmonton
pH and Conductivity in general soil 1:2	McKeague	* 1:2 Soil:Water Ratio, 4.12	12-Jun-17	Exova Edmonton
Saturated Paste in General Soil	Carter	 * Electrical Conductivity and Soluble Ior Chapter 15 	is, 12-Jun-17	Exova Edmonton
Sublet to Biovision	Ext. Lab	See attached test report,	09-Jun-17	Biovision Seed Research Ltd.

^{*} 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:

• Weed Seed analysis was performed by a subcontract laboratory. See attached one page report ROA1026941-01.

 Exova
 T: +1 (780) 438-5522

 7217 Roper Road NW
 F: +1 (780) 434-8586

 Edmonton, Alberta
 E: Edmonton@exova.com

 T6B 3J4, Canada
 W: www.exova.com

Attn: Charlene Hinkel



Methodology and Notes

Bill To: The Black Dirt Company Project:

300 Saskatchewan Ave ID: Spruce Grove, AB, Canada Name:

Location:

LSD:

Sampled By: P.O.:

Company: Acct code:

Lot ID: 1207263

Control Number: C0084827

Date Received: Jun 9, 2017

Date Reported: Jun 20, 2017

Report Number: 2197089

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

Results relate only to samples as submitted.



Submitted By:

Exova (Calgary) Bay #5, 2712 - 37 Avenue NE Calgary, AB CA T1Y 5L3

P (403) 291-2022 **E** calgary@exova.com

Work Order 1026939-01

Received 6/13/2017 Completed 6/14/2017

Tested By: BioVision Seed Labs Unit 310, 280 Portage Close Sherwood Park, Alberta T8H 2R6 **P** 1 (780) 436-8822

Sherwood Park, Alberta T8H 2R6

P 1 (780) 436-8822

CFIA Acc #1172

Sample of: Soil

Designated: PO# 103450

Sample ID: 1207263-1, Boundary Field Garden Mix



161 HOSNA ARA BEGUM

REPORT OF ANALYSIS

Soil Seed Analysis 50g

pale Smartweed 1

Chickweed 1

Lamb's-quarters 1

Completed: 6/14/2017 Method OTH



Submitted By:

Exova (Calgary) Bay #5, 2712 - 37 Avenue NE Calgary, AB CA T1Y 5L3

P (403) 291-2022 **E** calgary@exova.com

Work Order 1026940-01

Received 6/13/2017 Completed 6/13/2017

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

Sample of: Soil

Designated: PO# 103450

Sample ID: 1207263-2, Grove Drive Topsoil



141 JOYCE DARY

REPORT OF ANALYSIS

Soil Seed Analysis 50g

Completed: 6/13/2017

Method

OTH

Lamb's-quarters 1



Submitted By:

Exova (Calgary) Bay #5, 2712 - 37 Avenue NE Calgary, AB CA T1Y 5L3

P (403) 291-2022 **E** calgary@exova.com

Work Order 1026941-01

Received 6/13/2017 Completed 6/14/2017

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

Sample of: Soil

Designated: PO# 103450

Sample ID: 1207263-3, Boundary Field Topsoil



141 JOYCE DARY

REPORT OF ANALYSIS

Soil Seed Analysis 50g

Completed: 6/14/2017

Method

OTH

None Found 0

	COVC	all calibrating,	Invoice	e to:			Report To	o:									Report	Re	egulatory
		advising	Compa	ıny:	THE BLACK D	RT	Company:			Sav	rle.			Ы			Results	Re	equirement
/ww	.exova.com	ED 120-02	Addres		COMPANY		Address:										E-Mail	H	CDWQG
roj	ect Informa	tion	SPRU	E	300 SASKATCHEW	AN AVE				-							Mail	Al	Tier 1
Proj	ect ID:		Attentio		CHARLENT HI	NKEL	Attention:		_								Online		PIGEC
Proj	ect Name:		Phone:		780.616.356	6	Phone:		_	-30						_	Fax		CCSR
Proj	ect Location	L	Cell:	12	780.962.823	10	Cell:		_				4				PDF	Ot	ther (list below)
Leg	al Location:	Y	Fax:	In the			Fax:		_			-				_	Excel		
PO/	AFE#:		E-mail:	char	lene. hinkel@blackeli	A compa	F-mail 1:		_	_		-	_				QA/QC		7 X
	. Acct. Code	المنافة المساملة والمساورة	Agreem			Com	E-mail 2:		_						_				(please print)
Quo	ote #		Copy o				Copy of in	voice	:							_	Sampled	l by:	
	Priority 1	ncy (contact lab for turnaround and pri -2 working days (100% surcharge) -3 working days (50% surcharge)		V p	When "ASAP" is requested, turn around triority, with pricing and turn around tine lab prior to submitting RUSH samplUSH, please indicate in the special in	ne to match. P	lease contact	Containers	18	and fela		tour	-				Company This sec		Lab use only
	Date Requi	red:		Signati	ure:			5	0	5			215	1			Date/Tim	ne stamp):
	Special Instru	uctions/Comments (please include contact i	nformation	includir	ng ph. # if different from above).			Number	O V	N.	KC T	See	Mei		J,			JUN	9 AM11:00
	Site I.D.	Sample Description	Dept start in cm	end	Date/Time Sampled	Matrix	Sampling Method	J		(√ 1	Ente releva		ts abo		w)			cies by t	pace allotted any he corresponding
			III CIII						. 1		Ta	1 . /		_				1. Indicate any sample	
1		BOUNDARY FIELD GARDEN MIX							X		7 /	14	Y					1. Ind	licate any samples th
		BOUNDARY FIELD GARDEN MIX GROVE DRIVE TOPSOIL							7	X 7	> <i>></i> × ×	X	X	81					licate any samples th not packaged well
2									7	× 7	> > > >	×	X					were 2. Ind	not packaged well icate any samples no
2		GLOVEDRIVE TOPSOIL							X	× 7	× × ×	× ×	×				1-4	were 2. Ind	not packaged well icate any samples no
2 3 4		GROVE DRIVE TOPSOIL							× ×	× 7	× × ×	¥						2. Ind receiv	not packaged well icate any samples no ved in Exova supplies licate any samples th
2 3 4 5		GROVE DRIVE TOPSOIL							× × ×	× 7	× × × ×	¥						2. Ind receiv	not packaged well icate any samples no ved in Exova supplies
2 3 4 5 6 7		GROVE DRIVE TOPSOIL							× × ×	× 7	* >	¥						2. Ind receiv 3. Ind were 4. Ind	icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no
2 3 4 5 6 7		GROVE DRIVE TOPSOIL							× × ×	× 7	× × ×	¥						2. Ind received 3. Ind were 4. Ind received 4. Ind	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no
2 3 4 5 6 7 8		GROVE DRIVE TOPSOIL							× × ×	× 7	* >	¥ ×						3. Ind were 4. Ind received the second to th	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or
2 3 4 5 6 7 8 9		GROVE DRIVE TOPSOIL							× × ×	× 7	× × ×	¥ ×						3. Ind were 4. Ind received the second to th	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require
2 3 4 5 6 7 8 9 10		GROVE DRIVE TOPSOIL							× × ×	× 7	* > >	¥						were 2. Ind receiv 3. Ind were 4. Ind receiv hold t 5. Ind extra 6. Ind	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th
2 3 4 5 6 7 8 9 10 11 11		GROVE DRIVE TOPSOIL							× × × × × × × × × × × × × × × × × × ×	× 7	* > >	× ×						were 2. Ind receiv 3. Ind were 4. Ind receiv hold t 5. Ind extra 6. Ind were	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th received broken
2 3 4 5 6 7 8 9 10 11 11 12		GROVE DRIVE TOPSOIL							× × × × × × × × × × × × × × × × × × ×	× 7	× × ×	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						2. Ind received 3. Ind were 4. Ind received hold to 5. Ind extra 6. Ind were 7. Ind where	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th received broken licate any samples a sufficient volume w
2 3 4 5 6 7 8 9 10 111 112 13		GROVE DRIVE TOPSOIL							× / / / / / / / / / / / / / / / / / / /	× 7	× >	\(\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac}}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}}}}}{\frac{\						were 2. Ind receiv 3. Ind were 4. Ind receiv hold t 5. Ind extra 6. Ind were 7. Ind where not re	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th received broken licate any samples e sufficient volume w eceived
2 3 4 5 6 7 8 9 9 110 111 112 113 114 115 Sub		GROVE DRIVE TOPSOIL GROVE DRIVE BOUNDARY FIELD TOPSOIL is form acknowledges acceptance of	Exova's S		A	cate lot # or	affix barcod	e here		× 7	× × ×	\(\frac{1}{2}\)	×	pping		CO	D Y/ N	were 2. Ind receiv 3. Ind were 4. Ind receiv hold t 5. Ind extra 6. Ind were 7. Ind where not re 8. Ind receiv	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th received broken licate any samples e sufficient volume w secived licate any samples ved in an inappropria
and	Conditions (I	GROVE DRIVE TOPSOIL GROVE DRIVE BOUNDARY FIELD TOPSOIL	Exova's Sad-conditi		A	cate lot # or	affix barcod	e here		× 7	× > > > > > > > > > > > > > > > > > > >	\(\frac{1}{2}\)	× Shi		:	olers	D Y/ N	were 2. Ind receiv 3. Ind were 4. Ind receiv hold 1 5. Ind extra 6. Ind were 7. Ind were 8. Ind receiv conta	not packaged well icate any samples no ved in Exova supplies licate any samples th not clearly labeled licate any samples no ved within the require time or temp. licate any missing or samples licate any samples th received broken licate any samples e sufficient volume w secived licate any samples ved in an inappropria