

Agrisread Ltd
22 Coniston Drive
Frodsham
Cheshire
WA6 7LR

Natural Resources Wales
29 Newport Road
Ty Cambria
Cardiff
CF24 0TP

5th August 2017

To whom it may concern

Re: Deployment Applications declarations

I write to confirm that Richard Street of Trade Effluent Services Ltd is authorised to complete deployment applications and sign declarations on behalf of Agrisread Ltd.

Yours sincerely,



Robert Netzband-Piggott
Company Secretary



MR ROB PIGGOTT
 TRADE EFFLUENT SERVICES
 HUGMOOR HOUSE
 HUGMOOR
 LLANYPWLL
 WREXHAM LL13 9YE

F990

Please quote above code for all enquiries

AUTHENTIC FOOD CO

SLUDGE

SLURRY/SLUDGE ANALYSIS RESULTS (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLURRY/SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 33299
 Sample Number 75510

Date Received 06-NOV-2018

Date Reported 12-NOV-2018

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		7.16			
Oven Dry Solids	%	4.42	44.20	3453	kg DM
Total Nitrogen	% w/w	0.320	3.20	250	kg N
Ammonium Nitrogen	mg/kg	1362	1.36	106.41	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	756	1.73	135.26	kg P2O5
Total Potassium (K)	mg/kg	145	0.17	13.59	kg K2O
Total Magnesium (Mg)	mg/kg	379	0.63	49.15	kg MgO
Total Sulphur (S)	mg/kg	446	1.12	87.11	kg SO3
Total Copper (Cu)	mg/kg	3.11	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	16.0	0.02	1.25	kg Zn
Total Sodium (Na)	mg/kg	677	0.91	71.30	kg Na2O
Total Calcium (Ca)	mg/kg	1127	1.13	88.05	kg Ca
Equivalent field application rate		—	1.00	78.13	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by J Doyle

Date 12/11/18

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

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Laboratory References

Report Number 33299
Sample Number 75510

Date Received 06-NOV-2018

Date Reported 12-NOV-2018

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	2267
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.727
Total Chromium (Cr)	mg/kg	1.49
Water Soluble Magnesium	mg/kg	299
Water Soluble Phosphorus	mg/kg	<0.01
Water Soluble Potassium	mg/kg	131

Released by *J Doyle*

Date *12/11/18*

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m3)	Total Phosphate (Kg P2O5/m3)	Total Potash (Kg K2O/m3)	Total Sulphur (Kg SO3/m3)	Total Magnesium (Kg MgO/m3)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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F990

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CRODA WIDNES

 SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.
 The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References	
Report Number	45669
Sample Number	79669

Date Received	27-FEB-2019
Date Reported	05-MAR-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		7.45			
Oven Dry Solids	%	0.710	7.10	4438	kg DM
Total Nitrogen	% w/w	0.040	0.40	250	kg N
Ammonium Nitrogen	mg/kg	<50	< 0.01		kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	56.6	0.13	81.01	kg P2O5
Total Potassium (K)	mg/kg	50.7	0.06	38.03	kg K2O
Total Magnesium (Mg)	mg/kg	98.0	0.16	101.68	kg MgO
Total Sulphur (S)	mg/kg	87.7	0.22	137.03	kg SO3
Total Copper (Cu)	mg/kg	0.219	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	0.741	< 0.01		kg Zn
Total Sodium (Na)	mg/kg	561	0.76	472.64	kg Na2O
Total Calcium (Ca)	mg/kg	228	0.23	142.50	kg Ca
Equivalent field application rate		—	1.00	625.00	tonnes or m3 / ha

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Released by Darren Whitbread

Date 05/03/19

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Laboratory References

Report Number	45669
Sample Number	79669

Date Received	27-FEB-2019
Date Reported	05-MAR-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	656
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	<0.2
Total Chromium (Cr)	mg/kg	<0.2
Water Soluble Magnesium	mg/kg	74.0
Water Soluble Phosphorus	mg/kg	<0.01
Water Soluble Potassium	mg/kg	35.0

Released by Darren Whitbread

Date 05/03/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



FORWARD ENVIRONMENTAL
 WHITE PARK 1-3
 STATION ROAD
 SHEFFIELD
 S20 3GS

T596

Please quote above code for all enquiries

FORWARD ENVIRONMENTA
 EFFLUENT

EFFLUENT (Metric Units)

Sample Reference : EFFLUENT BIO WASTE

Sample Matrix : EFFLUENT

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References	
Report Number	42011
Sample Number	78656

Date Received	04-FEB-2019
Date Reported	08-FEB-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		6.99			
Oven Dry Solids	%	3.22	32.20	4025	kg DM
Total Nitrogen	% w/w	0.200	2.00	250	kg N
Ammonium Nitrogen	mg/kg	138	0.14	17.25	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	585	1.34	167.46	kg P2O5
Total Potassium (K)	mg/kg	181	0.22	27.15	kg K2O
Total Magnesium (Mg)	mg/kg	111	0.18	23.03	kg MgO
Total Sulphur (S)	mg/kg	1917	4.79	599.06	kg SO3
Total Copper (Cu)	mg/kg	0.682	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	14.9	0.01	1.86	kg Zn
Total Sodium (Na)	mg/kg	3335	4.50	561.95	kg Na2O
Total Calcium (Ca)	mg/kg	351	0.35	43.88	kg Ca
Equivalent field application rate		—	1.00	125.00	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by J Doyle

Date 08/02/19

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 SHEFFIELD
 S20 3GS

T596

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FORWARD ENVIRONMENTA
 EFFLUENT

EFFLUENT (Metric Units)

Sample Reference : EFFLUENT BIO WASTE

Sample Matrix : EFFLUENT

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References	
Report Number	42011
Sample Number	78656

Date Received	04-FEB-2019
Date Reported	08-FEB-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	2542
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.698
Total Chromium (Cr)	mg/kg	4.72

Released by *J Doyle*

Date *08/02/19*

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Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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F990

Please quote above code for all enquiries

ENGLISH PROVENDER

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 54987
 Sample Number 82320

Date Received 10-MAY-2019

Date Reported 16-MAY-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		4.51			
Oven Dry Solids	%	12.9	129.00	32250	kg DM
Total Kjeldahl Nitrogen	% w/w	0.100	1.00	250	kg N
Ammonium Nitrogen	mg/kg	<50	< 0.01		kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	198	0.45	113.35	kg P2O5
Total Potassium (K)	mg/kg	82.5	0.10	24.75	kg K2O
Total Magnesium (Mg)	mg/kg	14.3	0.02	5.93	kg MgO
Total Sulphur (S)	mg/kg	115	0.29	71.88	kg SO3
Total Copper (Cu)	mg/kg	0.542	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	1.07	< 0.01		kg Zn
Total Sodium (Na)	mg/kg	748	1.01	252.08	kg Na2O
Total Calcium (Ca)	mg/kg	107	0.11	26.75	kg Ca
Equivalent field application rate		—	1.00	250.00	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Darren Whitbread

Date 16/05/19

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ENGLISH PROVENDER

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number	54987
Sample Number	82320

Date Received	10-MAY-2019
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Date Reported	16-MAY-2019
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ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	635
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.375
Total Chromium (Cr)	mg/kg	0.913
Water Soluble Magnesium	mg/kg	12.0
Water Soluble Phosphorus	mg/kg	12.3
Water Soluble Potassium	mg/kg	81.8

Released by Darren Whitbread

Date 16/05/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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F990

KELLOGGS

Please quote above code for all enquiries

SLUDGE CAKE (Metric Units)

Sample Reference : SLUDGE CAKE

Sample Matrix : SLUDGE CAKE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number 54975
 Sample Number 101506

Date Received 10-MAY-2019

Date Reported 20-MAY-2019

ANALYTICAL RESULTS

Determinand on a DM basis unless otherwise indicated	Units	Result	Amount per fresh tonne	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		4.47			
Oven Dry Matter	%	13.4	134.00	4310	kg DM
Total Nitrogen	% w/w	5.80	7.77	250	kg N
Ammonium Nitrogen	mg/kg	530	0.07	2.28	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	% w/w	0.549	1.68	54.19	kg P2O5
Total Potassium (K)	% w/w	0.579	0.93	29.95	kg K2O
Total Magnesium (Mg)	% w/w	0.076	0.17	5.44	kg MgO
Total Sulphur (S)	% w/w	0.213	0.71	22.95	kg SO3
Total Copper (Cu)	mg/kg	16.6	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	31.9	< 0.01		kg Zn
Total Sodium (Na)	% w/w	0.086	0.16	5.00	kg Na2O
Total Calcium (Ca)	mg/kg	2954	0.40	12.73	kg Ca
Equivalent field application rate		—	1.00	32.17	tonnes/ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Myles Nicholson

Date 20/05/19

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KELLOGGS

 SLUDGE CAKE

SLUDGE CAKE (Metric Units)

Sample Reference : SLUDGE CAKE

Sample Matrix : SLUDGE CAKE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	54975
Sample Number	101506

Date Received	10-MAY-2019
Date Reported	20-MAY-2019

ANALYTICAL RESULTS

Determinand on a DM basis unless otherwise indicated	Units	Result
Conductivity 1:6 [Fresh]	uS/cm	454
Total Lead (Pb)	mg/kg	1.63
Total Cadmium (Cd)	mg/kg	<0.1
Total Mercury (Hg)	mg/kg	<0.1
Total Nickel (Ni)	mg/kg	1.79
Total Chromium (Cr)	mg/kg	6.03
Water Soluble Magnesium	mg/kg	166
Water Soluble Phosphorus	mg/kg	906
Water Soluble Potassium	mg/kg	3151

Released by Myles Nicholson

Date 20/05/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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F990

Please quote above code for all enquiries

MAELOR FOOD

 SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References	
Report Number	45666
Sample Number	79666

Date Received	27-FEB-2019
Date Reported	04-MAR-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		7.52			
Oven Dry Solids	%	4.56	45.60	3353	kg DM
Total Nitrogen	% w/w	0.340	3.40	250	kg N
Ammonium Nitrogen	mg/kg	901	0.90	66.25	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	770	1.76	129.66	kg P2O5
Total Potassium (K)	mg/kg	190	0.23	16.76	kg K2O
Total Magnesium (Mg)	mg/kg	243	0.40	29.66	kg MgO
Total Sulphur (S)	mg/kg	762	1.90	140.07	kg SO3
Total Copper (Cu)	mg/kg	3.51	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	19.1	0.02	1.40	kg Zn
Total Sodium (Na)	mg/kg	674	0.91	66.81	kg Na2O
Total Calcium (Ca)	mg/kg	1047	1.05	76.99	kg Ca
Equivalent field application rate		—	1.00	73.53	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Darren Whitbread

Date 04/03/19

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MAELOR FOOD

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number	45666
Sample Number	79666

Date Received	27-FEB-2019
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Date Reported	04-MAR-2019
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ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	1806
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.592
Total Chromium (Cr)	mg/kg	1.17
Water Soluble Magnesium	mg/kg	145
Water Soluble Phosphorus	mg/kg	0.136
Water Soluble Potassium	mg/kg	180

Released by Darren Whitbread

Date 04/03/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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Please quote above code for all enquiries

NIMBUS
DOLGELLAU
LL40 1UU

SLUDGE ANALYSIS RESULTS

Sample Reference :

SLUDGE

Sample Matrix : SLUDGE

Laboratory References

Report Number 61824
Sample Number 84511

Date Received 11-JUL-2019
Date Reported 15-JUL-2019

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand	Value	Units
Oven Dry Solids	2.33	%
Conductivity 1:6	234	uS/cm
Total Kjeldahl Nitrogen	0.05	% w/w
Nitrate Nitrogen	<10	mg/kg
Ammonium Nitrogen	<50	mg/kg
Total Phosphorus (P)	91.9	mg/kg
Total Potassium (K)	67.8	mg/kg
Total Magnesium (Mg)	18.6	mg/kg
Total Copper (Cu)	3.21	mg/kg
Total Zinc (Zn)	7.59	mg/kg

Released by Katie Dunn

Date 15/07/19

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SLUDGE ANALYSIS RESULTS

Sample Reference :

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Laboratory References

Report Number 61824
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Date Received 11-JUL-2019
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The sample submitted was of adequate size to complete all analysis requested.
The sample will be kept under refrigeration for at least 3 weeks.

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand	Value	Units
Total Sulphur (S)	50.1	mg/kg
Total Calcium (Ca)	109	mg/kg
Total Lead (Pb)	<0.5	mg/kg
Total Cadmium (Cd)	<0.01	mg/kg
Total Mercury (Hg)	<0.05	mg/kg
Total Nickel (Ni)	0.37	mg/kg
Total Chromium (Cr)	0.64	mg/kg
Total Sodium (Na)	952	mg/kg
pH 1:6 [Fresh]	4.61	
Water Soluble Magnesium	14.6	mg/kg

Released by Katie Dunn

Date 15/07/19

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SLUDGE ANALYSIS RESULTS

Sample Reference :

SLUDGE

Sample Matrix : SLUDGE

Laboratory References

Report Number 61824
Sample Number 84511

Date Received 11-JUL-2019
Date Reported 15-JUL-2019

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand	Value	Units
Water Soluble Phosphorus	36.8	mg/kg
Water Soluble Potassium	67.3	mg/kg

Released by Katie Dunn

Date 15/07/19

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ROB MORGAN

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 41692
 Sample Number 78631

Date Received 31-JAN-2019

Date Reported 06-FEB-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		4.45			
Oven Dry Solids	%	7.30	73.00	15208	kg DM
Total Nitrogen	% w/w	0.120	1.20	250	kg N
Ammonium Nitrogen	mg/kg	118	0.12	24.58	kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	17.6	0.04	8.40	kg P2O5
Total Potassium (K)	mg/kg	30.3	0.04	7.57	kg K2O
Total Magnesium (Mg)	mg/kg	<10			kg MgO
Total Sulphur (S)	mg/kg	3844	9.61	2002.05	kg SO3
Total Copper (Cu)	mg/kg	<0.2	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	<0.5	< 0.01		kg Zn
Total Sodium (Na)	mg/kg	10791	14.55	% 3030.42	kg Na2O
Total Calcium (Ca)	mg/kg	10.5	0.01	2.19	kg Ca
Equivalent field application rate		—	1.00	208.33	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Darren Whitbread

Date 06/02/19

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ROB MORGAN

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 41692
Sample Number 78631

Date Received 31-JAN-2019

Date Reported 06-FEB-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	<0.2
Total Chromium (Cr)	mg/kg	0.210

Released by Darren Whitbread

Date 06/02/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P2O5/m ³)	Total Potash (Kg K2O/m ³)	Total Sulphur (Kg SO3/m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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ROWSON FOODS

SLUDGE

SLURRY/SLUDGE ANALYSIS RESULTS (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLURRY/SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 64783
 Sample Number 85312

Date Received 06-AUG-2019

Date Reported 08-AUG-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		4.02			
Oven Dry Solids	%	5.34	53.40	13350	kg DM
Total Kjeldahl Nitrogen	% w/w	0.100	1.00	250	kg N
Ammonium Nitrogen	mg/kg	<50	< 0.01		kg NH4-N
Nitrate Nitrogen	mg/kg	<10	< 0.01		kg NO3-N
Total Phosphorus (P)	mg/kg	350	0.80	200.37	kg P2O5
Total Potassium (K)	mg/kg	65.6	0.08	19.68	kg K2O
Total Magnesium (Mg)	mg/kg	58.3	0.10	24.19	kg MgO
Total Sulphur (S)	mg/kg	158	0.40	98.75	kg SO3
Total Copper (Cu)	mg/kg	0.649	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	1.71	< 0.01		kg Zn
Total Sodium (Na)	mg/kg	286	0.39	96.38	kg Na2O
Total Calcium (Ca)	mg/kg	295	0.29	73.75	kg Ca
Equivalent field application rate		—	1.00	250.00	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Myles Nicholson

Date 08/08/19

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ROWSON FOODS

SLUDGE

SLURRY/SLUDGE ANALYSIS RESULTS (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLURRY/SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 64783
Sample Number 85312

Date Received 06-AUG-2019

Date Reported 08-AUG-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	577
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.780
Total Chromium (Cr)	mg/kg	1.77
Water Soluble Magnesium	mg/kg	49.2
Water Soluble Phosphorus	mg/kg	9.48
Water Soluble Potassium	mg/kg	65.0

Released by Myles Nicholson

Date 08/08/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m3)	Total Phosphate (Kg P2O5/m3)	Total Potash (Kg K2O/m3)	Total Sulphur (Kg SO3/m3)	Total Magnesium (Kg MgO/m3)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P2O5/t)	Total Potash (Kg K2O/t)	Total Sulphur (Kg SO3/t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.



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SECANIM

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number 45668
 Sample Number 79668

Date Received 27-FEB-2019
 Date Reported 05-MAR-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result	Amount per fresh tonne or m3	Amount applied at an equivalent total Nitrogen application of 250 kg N/ha	Units
pH 1:6 [Fresh]		7.93			
Oven Dry Solids	%	1.43	14.30	3972	kg DM
Total Nitrogen	% w/w	0.090	0.90	250	kg N
Ammonium Nitrogen	mg/kg	<50	< 0.01		kg NH4-N
Nitrate Nitrogen	mg/kg	67.6	0.07	18.78	kg NO3-N
Total Phosphorus (P)	mg/kg	173	0.40	110.05	kg P2O5
Total Potassium (K)	mg/kg	204	0.24	68.00	kg K2O
Total Magnesium (Mg)	mg/kg	30.7	0.05	14.16	kg MgO
Total Sulphur (S)	mg/kg	379	0.95	263.20	kg SO3
Total Copper (Cu)	mg/kg	0.312	< 0.01		kg Cu
Total Zinc (Zn)	mg/kg	3.63	< 0.01		kg Zn
Total Sodium (Na)	mg/kg	1094	1.47	409.65	kg Na2O
Total Calcium (Ca)	mg/kg	239	0.24	66.39	kg Ca
Equivalent field application rate		—	1.00	277.78	tonnes or m3 / ha

The above equivalent field application rate for total nitrogen of 250 kg/ha has been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by *Darren Whitbread*

Date *05/03/19*

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SECANIM

SLUDGE

SLUDGE (Metric Units)

Sample Reference : SLUDGE

Sample Matrix : SLUDGE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept under refrigeration for at least 3 weeks.

Laboratory References

Report Number	45668
Sample Number	79668

Date Received	27-FEB-2019
Date Reported	05-MAR-2019

ANALYTICAL RESULTS *on 'as received' basis.*

Determinand on a fresh weight basis	Units	Result
Conductivity 1:6	uS/cm	830
Total Lead (Pb)	mg/kg	<0.5
Total Cadmium (Cd)	mg/kg	<0.01
Total Mercury (Hg)	mg/kg	<0.05
Total Nickel (Ni)	mg/kg	0.224
Total Chromium (Cr)	mg/kg	<0.2
Water Soluble Magnesium	mg/kg	9.75
Water Soluble Phosphorus	mg/kg	5.08
Water Soluble Potassium	mg/kg	146

Released by Darren Whitbread

Date 05/03/19

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM	25	6.0	3.2	9.4	2.4	1.8
Pig FYM	25	7.0	6.0	8.0	3.4	1.8
Sheep FYM	25	7.0	3.2	8.0	4.0	2.8
Duck FYM	25	6.5	5.5	7.5	2.6	2.4
Horse FYM	25	5.0	5.0	6.0	1.6	1.5
Goat FYM	40	9.5	4.5	12.0	2.8	1.8

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
	20	9.4	8.0	8.5	3.0	2.7
	40	19.0	12.0	15.0	5.6	4.3
	60	28.0	17.0	21.0	8.2	5.9
	80	37.0	21.0	27.0	11.0	7.5

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6.0	2.6	1.2	2.5	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.1	1.0	0.1	0.1
Separated cattle slurries						
- strainer box liquid	1.5	1.5	0.3	1.5	ND	ND
- weeping wall liquid	3.0	2.0	0.5	2.3	ND	ND
- mechanically separated liquid	4.0	3.0	1.2	2.8	ND	ND
- solid portion after separation	20.0	4.0	2.0	3.3	ND	ND
Pig slurry	4.0	3.6	1.5	2.2	0.7	0.7
Separated pig slurry - liquid	3.0	3.6	1.1	2.0	ND	ND
Separated pig slurry - solid	20.0	5.0	3.7	2.0	ND	ND

Notes: ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested cake	25	11.0	11.0	0.6	8.2	1.6
Thermally dried	95	40.0	55.0	2.0	23.0	6.0
Lime stabilised	25	8.5	7.0	0.8	7.4	2.4
Composted	40	11.0	10.0	3.0	6.1	2.0

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts						
Green compost	60	7.5	3.0	6.8	3.4	3.4
Green/food compost	60	11.0	4.9	8.0	5.1	3.4
Mushroom compost	35	6.0	5.0	9.0	ND	ND
Digestates						
Food-based whole	4.1	4.8	1.1	2.4	0.7	0.2
Food-based separated liquor	3.8	4.5	1.0	2.8	1.0	0.2
Food-based separated fibre	27.0	8.9	10.2	3.0	4.0	2.2
Farm-sourced whole	5.5	3.6	1.7	4.0	0.8	0.6
Farm-sourced separated liquor	3.0	1.9	0.6	2.5	<0.1	0.4
Farm-sourced separated fibre	24.0	5.6	4.7	6.0	1.2	1.8
Paper Crumble						
Chemically / physically treated	40	2.0	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	3.8	0.4	2.4	1.0
Water Treatment Cake						
Water treatment cake	25	2.4	3.4	0.4	5.5	0.8
Food industry 'wastes'						
Dairy waste	4	1.0	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	0.2	Trace	ND	ND
Brewing waste	7	2.0	0.8	0.2	ND	ND
General food waste	5	1.6	0.7	0.2	ND	ND

Notes: ND = no data.

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2017 (RB209) 9th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.

Agri Spread

Appendix B

Site Specific Risk Assessment – To be read in conjunction with landspreading Generic Risk Assessment

Farm Name: Brookhouse Farm
 Address: Brookhouse Farm, Hanmer, Whitchurch, SY13 3EG

Site Specific Risk Assessment for: Mobile Plant for Landspreading – SR2010No4 – Spreading commercial waste at the above site

Risk Assessment Carried out by: Ryan Griffiths-Patel Date: 15/08/2019

Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is the risk? What do I wish to protect?	The agent or process with potential to cause harm	The harmful consequences if things go wrong	How the receptor might come into contact with the source	How likely is contact?	Severity of the consequences if this occurs	The overall magnitude of the risk	Basis of my judgement	How I can best manage the risk to reduce the magnitude	Magnitude of the risk after management
The site is within 500m of two statutory designated environment ally sensitive area- Hanmer Mere SSSI and Llyn Bedydd SSSI	Deterioration of the SSSI site through nutrient enrichment.	Nutrient enrichment of ponds, meres, or pools & associated habitats (including rare species of invertebrates).	Surface run off & leaching.	Low	High	Moderate	Waste is spread in accordance with COGAP. Wastes that are to be surface applied have low application rates.	30 m buffer zone on land adjacent to the SSSI <ul style="list-style-type: none"> Waste spread in accordance with COGAP Operations carried out using best available techniques Spreading to be carried out during appropriate conditions Regular checks of watercourses in the area surrounding the spreading operations No travelling on a SSSI or protected site No activities to occur inside the boundary without written permission Consult CCW/Natural England websites for classification and details of ESA ESA clearly marked on deployment maps 	Low
The site is within 500m of a RAMSAR site-Midland Meres and Mosses Phase 2	Deterioration of Ramsar site through nutrient enrichment.	Nutrient enrichment of ponds or associated habitats	Surface run off, Leaching.	Low	High	Moderate	Waste is spread in accordance with COGAP.	30m buffer zone on land adjacent to Ramsar site – North & East of field 8 <ul style="list-style-type: none"> Waste spread in accordance with COGAP Operations carried out using best available techniques Spreading to be carried out during appropriate conditions 	Low

Written by: R. Piggott	Approved by: R. J. Piggott	Date: 15/08/2019
Title: SP2010No4\TEMP\Mobile Plant Site Specific Risk Assessment	Version: 1	Last Printed: 15/08/2019 12:36



SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 18

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 BROOK FARM
 HANMER
 WHITCHURCH

Laboratory References

Date Received 11-JUL-2019
 Date Reported 15-JUL-2019

Report Number 61812
 Sample Number 441871

ANALYTICAL RESULTS on 'dry matter' basis.

pH ⁽¹⁾

Determinand	Result	Soil pH						
		4	5	6	7	8	9	
Soil pH	5.9							

Soil Nutrients ⁽¹⁾

Determinand	Result mg/litre	Soil Index	Soil Index						
			0	1	2	3	4	5	6
Available Phosphorus	17.0	2							
Available Potassium	147	2-							
Available Magnesium	124	3							

Potentially Toxic Elements ⁽²⁾

Determinand	Result mg/kg	Maximum mg/kg	% of maximum permissible concentration of PTE in arable/grassland soil				
			0%	25%	50%	75%	100%
Total Copper	23.7	Arable 100 Grassland 170					
Total Zinc	61.6	Arable 200 Grassland 200					
Total Nickel	20.5	Arable 60 Grassland 100					
Total Cadmium	0.13	Arable 3 Grassland 3					
Total Lead	33.4	Arable 300 Grassland 300					
Total Chromium	42.9	Arable 400 Grassland 600					
Total Mercury	<0.2	Arable 1 Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 20

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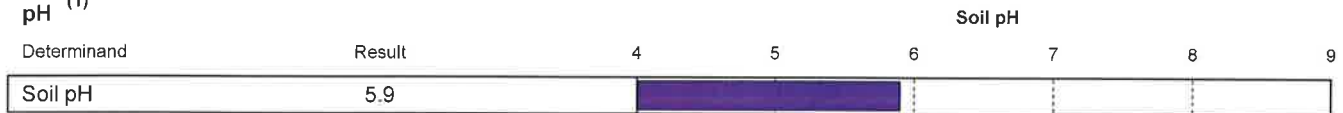
Laboratory References

Date Received	11-JUL-2019
Date Reported	15-JUL-2019

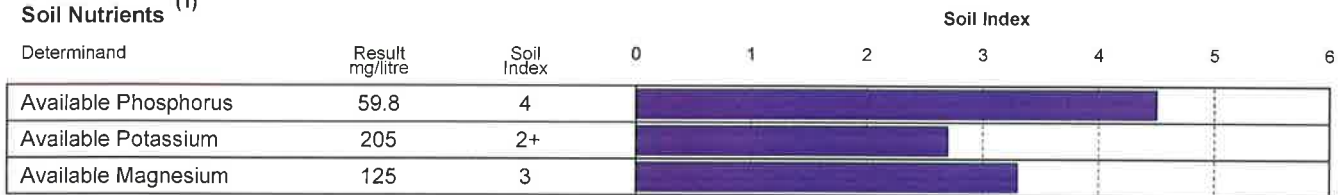
Report Number	61812
Sample Number	441872

ANALYTICAL RESULTS *on 'dry matter' basis.*

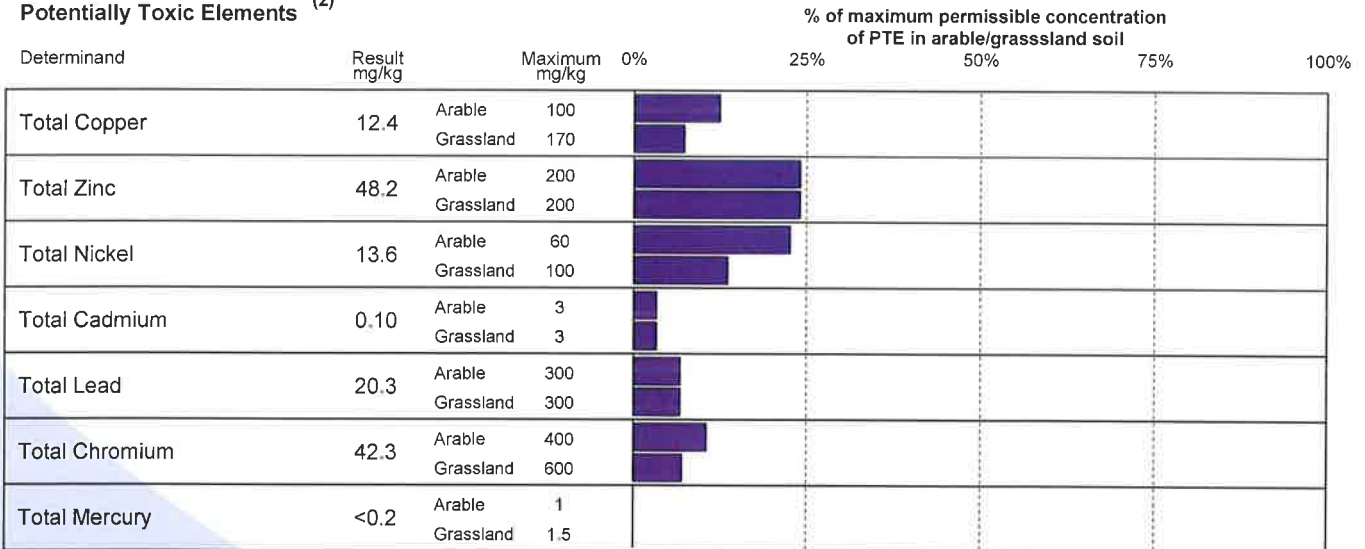
pH ⁽¹⁾



Soil Nutrients ⁽¹⁾



Potentially Toxic Elements ⁽²⁾



(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 39

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 WHITCHURCH

Laboratory References

Date Received	11-JUL-2019
Date Reported	15-JUL-2019

Report Number	61812
Sample Number	441873

ANALYTICAL RESULTS *on 'dry matter' basis.*

pH ⁽¹⁾

Soil pH

Determinand	Result	4	5	6	7	8	9	
Soil pH	6.8							

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0	1	2	3	4	5	6
Available Phosphorus	28.8	3							
Available Potassium	197	2+							
Available Magnesium	201	4							

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0%	25%	50%	75%	100%
Total Copper	15.8	Arable 135					
		Grassland 225					
Total Zinc	58.2	Arable 200					
		Grassland 200					
Total Nickel	18.9	Arable 75					
		Grassland 125					
Total Cadmium	0.17	Arable 3					
		Grassland 3					
Total Lead	25.2	Arable 300					
		Grassland 300					
Total Chromium	34.8	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 25

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 HANMER
 WHITCHURCH

Laboratory References

Date Received	11-JUL-2019
Date Reported	15-JUL-2019

Report Number	61811
Sample Number	441865

ANALYTICAL RESULTS *on 'dry matter' basis.*

pH ⁽¹⁾

Soil pH

Determinand	Result	Soil Index
Soil pH	5.5	4 ————— 5 ————— 6 ————— 7 ————— 8 ————— 9

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	Soil Index
Available Phosphorus	12.2	1	0 ————— 1 ————— 2 ————— 3 ————— 4 ————— 5 ————— 6
Available Potassium	52.8	0	0 ————— 1 ————— 2 ————— 3 ————— 4 ————— 5 ————— 6
Available Magnesium	100	2	0 ————— 1 ————— 2 ————— 3 ————— 4 ————— 5 ————— 6

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	% of maximum permissible concentration
Total Copper	11.7	Arable 80	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 138	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Zinc	53.2	Arable 200	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 200	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Nickel	14.3	Arable 50	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 80	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Cadmium	0.13	Arable 3	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 3	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Lead	32.0	Arable 300	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 300	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Chromium	27.6	Arable 400	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 600	0% ————— 25% ————— 50% ————— 75% ————— 100%
Total Mercury	<0.2	Arable 1	0% ————— 25% ————— 50% ————— 75% ————— 100%
		Grassland 1.5	0% ————— 25% ————— 50% ————— 75% ————— 100%

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 34

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 WHITCHURCH

Laboratory References

Date Received 11-JUL-2019
 Date Reported 15-JUL-2019

Report Number 61811
 Sample Number 441866

ANALYTICAL RESULTS on 'dry matter' basis.

pH ⁽¹⁾

Determinand	Result	Soil pH						
		4	5	6	7	8	9	
Soil pH	6.4							

Soil Nutrients ⁽¹⁾

Determinand	Result mg/litre	Soil Index	Soil Index						
			0	1	2	3	4	5	6
Available Phosphorus	46.4	4							
Available Potassium	234	2+							
Available Magnesium	207	4							

Potentially Toxic Elements ⁽²⁾

Determinand	Result mg/kg	Maximum mg/kg	% of maximum permissible concentration of PTE in arable/grassland soil					
			0%	25%	50%	75%	100%	
Total Copper	23.6	Arable 135						
		Grassland 225						
Total Zinc	79.5	Arable 200						
		Grassland 200						
Total Nickel	13.0	Arable 75						
		Grassland 125						
Total Cadmium	0.19	Arable 3						
		Grassland 3						
Total Lead	59.4	Arable 300						
		Grassland 300						
Total Chromium	22.8	Arable 400						
		Grassland 600						
Total Mercury	<0.2	Arable 1						
		Grassland 1.5						

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 36

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F990

Please quote above code for all enquiries

BRIAN JONES
BROOK FARM
HANMER
WHITCHURCH

Laboratory References

Date Received 11-JUL-2019
Date Reported 15-JUL-2019

Report Number 61811
Sample Number 441867

ANALYTICAL RESULTS *on 'dry matter' basis.*

pH ⁽¹⁾

Soil pH

Determinand	Result	4	5	6	7	8	9
Soil pH	6.4						

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0	1	2	3	4	5	6
Available Phosphorus	15.8	2							
Available Potassium	82.6	1							
Available Magnesium	180	4							

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0%	25%	50%	75%	100%
Total Copper	13.5	Arable 135					
		Grassland 225					
Total Zinc	59.5	Arable 200					
		Grassland 200					
Total Nickel	16.2	Arable 75					
		Grassland 125					
Total Cadmium	0.14	Arable 3					
		Grassland 3					
Total Lead	38.0	Arable 300					
		Grassland 300					
Total Chromium	30.2	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

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Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 26

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BRIAN JONES
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WHITCHURCH

Laboratory References

Date Received 11-JUL-2019
Date Reported 15-JUL-2019

Report Number 61811
Sample Number 441869

ANALYTICAL RESULTS *on 'dry matter' basis.*

pH ⁽¹⁾

Soil pH

Determinand	Result	4	5	6	7	8	9	
Soil pH	5.9							

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0	1	2	3	4	5	6
Available Phosphorus	31.2	3							
Available Potassium	72.9	1							
Available Magnesium	99.9	2							

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0%	25%	50%	75%	100%
Total Copper	11.4	Arable 100					
		Grassland 170					
Total Zinc	57.9	Arable 200					
		Grassland 200					
Total Nickel	14.8	Arable 60					
		Grassland 100					
Total Cadmium	0.14	Arable 3					
		Grassland 3					
Total Lead	30.2	Arable 300					
		Grassland 300					
Total Chromium	34.9	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 31

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Laboratory References

Date Received 11-JUL-2019
 Date Reported 15-JUL-2019

Report Number 61811
 Sample Number 441870

ANALYTICAL RESULTS *on 'dry matter' basis.*

pH ⁽¹⁾

Soil pH

Determinand	Result		4	5	6	7	8	9	
Soil pH	6.4								

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0	1	2	3	4	5	6
Available Phosphorus	19.2	2							
Available Potassium	203	2+							
Available Magnesium	223	4							

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0%	25%	50%	75%	100%
Total Copper	15.2	Arable 135					
		Grassland 225					
Total Zinc	58.4	Arable 200					
		Grassland 200					
Total Nickel	17.8	Arable 75					
		Grassland 125					
Total Cadmium	0.17	Arable 3					
		Grassland 3					
Total Lead	36.0	Arable 300					
		Grassland 300					
Total Chromium	37.1	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 37

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Laboratory References

Date Received 11-JUL-2019
 Date Reported 15-JUL-2019

Report Number 61810
 Sample Number 441859

ANALYTICAL RESULTS on 'dry matter' basis.

pH ⁽¹⁾

Soil pH

Determinand	Result	4	5	6	7	8	9	
Soil pH	6.5							

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0	1	2	3	4	5	6
Available Phosphorus	32.0	3							
Available Potassium	201	2+							
Available Magnesium	169	3							

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0%	25%	50%	75%	100%
Total Copper	15.3	Arable 135					
		Grassland 225					
Total Zinc	56.7	Arable 200					
		Grassland 200					
Total Nickel	11.9	Arable 75					
		Grassland 125					
Total Cadmium	0.16	Arable 3					
		Grassland 3					
Total Lead	46.7	Arable 300					
		Grassland 300					
Total Chromium	24.8	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 16/17

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 WHITCHURCH

Laboratory References

Date Received	11-JUL-2019
Date Reported	15-JUL-2019

Report Number	61810
Sample Number	441860

ANALYTICAL RESULTS on 'dry matter' basis.

pH ⁽¹⁾

Soil pH

Determinand	Result	4 5 6 7 8 9
Soil pH	6.2	

Soil Nutrients ⁽¹⁾

Soil Index

Determinand	Result mg/litre	Soil Index	0 1 2 3 4 5 6
Available Phosphorus	21.6	2	
Available Potassium	88.6	1	
Available Magnesium	160	3	

Potentially Toxic Elements ⁽²⁾

% of maximum permissible concentration of PTE in arable/grassland soil

Determinand	Result mg/kg	Maximum mg/kg	0% 25% 50% 75% 100%
Total Copper	15.9	Arable 135	
		Grassland 225	
Total Zinc	60.5	Arable 200	
		Grassland 200	
Total Nickel	19.3	Arable 75	
		Grassland 125	
Total Cadmium	0.19	Arable 3	
		Grassland 3	
Total Lead	35.0	Arable 300	
		Grassland 300	
Total Chromium	30.1	Arable 400	
		Grassland 600	
Total Mercury	<0.2	Arable 1 Grassland 1.5	

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

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Date15/07/19.....

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 29

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Laboratory References

Date Received 11-JUL-2019
Date Reported 15-JUL-2019

Report Number 61810
Sample Number 441861

ANALYTICAL RESULTS on 'dry matter' basis.

pH ⁽¹⁾

Determinand	Result	Soil pH						
		4	5	6	7	8	9	
Soil pH	6.6							

Soil Nutrients ⁽¹⁾

Determinand	Result mg/litre	Soil Index	Soil Index						
			0	1	2	3	4	5	6
Available Phosphorus	40.2	3							
Available Potassium	487	4							
Available Magnesium	247	4							

Potentially Toxic Elements ⁽²⁾

Determinand	Result mg/kg	Maximum mg/kg	% of maximum permissible concentration of PTE in arable/grassland soil				
			0%	25%	50%	75%	100%
Total Copper	22.6	Arable 135					
		Grassland 225					
Total Zinc	124	Arable 200					
		Grassland 200					
Total Nickel	18.3	Arable 75					
		Grassland 125					
Total Cadmium	0.29	Arable 3					
		Grassland 3					
Total Lead	53.3	Arable 300					
		Grassland 300					
Total Chromium	31.0	Arable 400					
		Grassland 600					
Total Mercury	<0.2	Arable 1					
		Grassland 1.5					

(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

(2) Concentration of Potentially Toxic Elements (PTE, commonly referred to as 'heavy metals') are in mg/kg dry soil. The maximum and the percentage of this maximum permissible concentration of PTE in soil are derived from the values in Defra's Code of Practice for Agricultural Use of Sewage Sludge (England & Wales) 1996. If applying organic manures to this soil it is important to ensure the soil is managed with a pH no less than 5.0, and that the PTE maximum values are not exceeded following the application. For soil where the pH value is less than 5.2, a FACTS Qualified Adviser should be consulted. Further details are provided in the Sludge Code.

Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 35

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BRIAN JONES
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 HANMER
 WHITCHURCH

Laboratory References

Date Received 11-JUL-2019
 Date Reported 15-JUL-2019

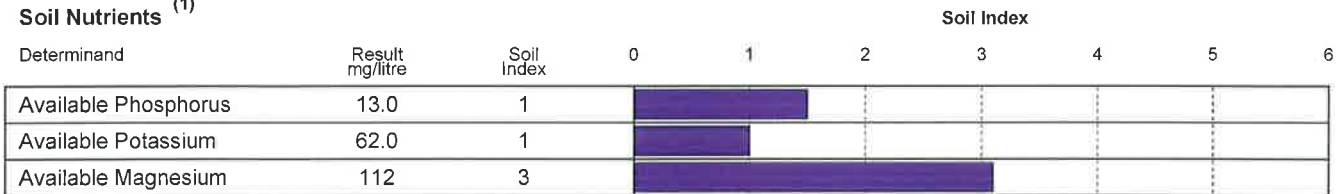
Report Number 61810
 Sample Number 441862

ANALYTICAL RESULTS on 'dry matter' basis.

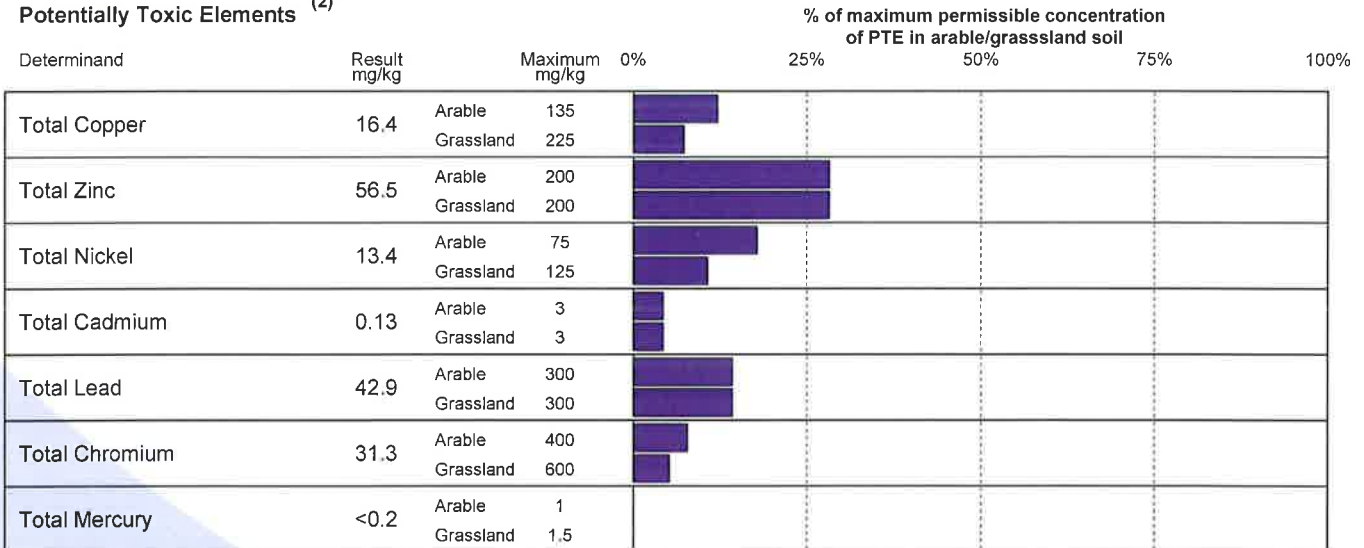
pH ⁽¹⁾



Soil Nutrients ⁽¹⁾



Potentially Toxic Elements ⁽²⁾



(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

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Released by Katie Dunn

Date 15/07/19

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SOIL CHEMICAL ANALYSIS REPORT FOR FIELD - 38

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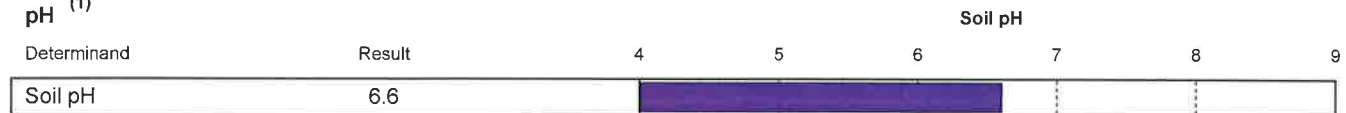
Laboratory References

Date Received	11-JUL-2019
Date Reported	15-JUL-2019

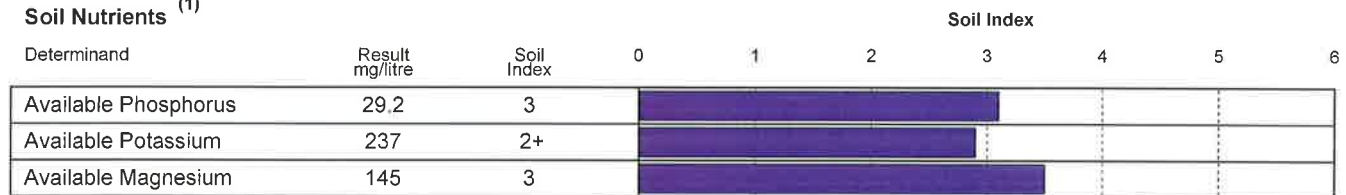
Report Number	61809
Sample Number	441853

ANALYTICAL RESULTS *on 'dry matter' basis.*

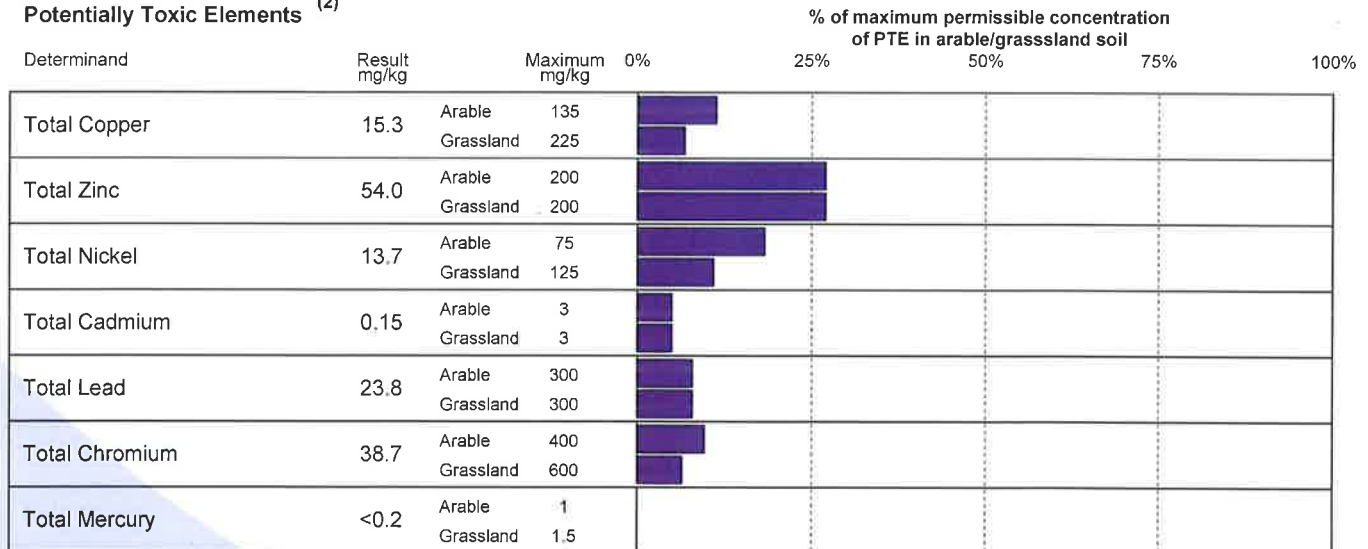
pH ⁽¹⁾



Soil Nutrients ⁽¹⁾



Potentially Toxic Elements ⁽²⁾



(1) Recommendations for liming and fertiliser should be obtained from Defra's Fertiliser Manual (RB209). The analytical methods used are as described in Defra's RB427.

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Released by Katie Dunn

Date 15/07/19

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