LFB Resources NL, ABN 90 073 478 574



McPhillamys Gold Project

Documentation Supporting an Application for a Site Verification Certificate



Prepared by
SUSTAINABLE SOILS MANAGEMENT PTY LTD

March, 2019

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Documentation Supporting an Application for a Site Verification Certificate

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EXECUTIVE SUMMARY

LFB Resources NL ("the Applicant"), a 100% wholly owned subsidiary of Regis Resources Ltd (Regis), is seeking approval to develop and operate the McPhillamys Gold Project ("the Project"), approximately 8 km northeast of Blayney in the Central West of NSW.

Clause 50A of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) outlines special provisions relating to mining or petroleum development applications on strategic agricultural land. As the Project is a mining development within the meaning of Part 4AA of the State Environmental Planning Policy (Mining, Petroleum and Extractive Industries) 2007, Clause 50A of the EP&A Regulation requires that the development application be accompanied by either:

- a "Gateway Certificate", where the development occurs on land which meets the definition of Biophysical Strategic Agricultural Land (BSAL); or
- a "Site Verification Certificate" that certifies that the land on which the proposed development is to be carried out is not BSAL.

Accordingly, an assessment has been prepared to determine whether the Project is on land that meets the definition of BSAL in accordance with the "Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land" (OEH and OASFS, 2013). The Interim Protocol outlines the preliminary process by which land with potential BSAL attributes is identified, and the subsequent steps for further detailed investigation, laboratory analysis and identification of soil landscape units with BSAL characteristics or otherwise. The assessment, as outlined in this report, demonstrates there is no BSAL within the area over which a mining lease will be required for the Project (the SVC Application Area), and as such the Applicant is seeking a Site Verification Certificate for the Project.

The region in which the SVC Application Area is located experiences reliable rainfall. Some sections of the Application Area also meet additional BSAL criteria such as slope and rock outcrop, and therefore the Applicant commissioned a detailed site soil survey.

The site soil survey was conducted by accredited soil scientists, Dr Pat Hulme and Dr Geoff Kew of Sustainable Soil Management (SSM). Both Dr Hulme and Dr Kew are Certified Professional Soil Scientist (CPSS) with PhDs in Soil Science. A total of 86 soil sample sites consisting of 83 soil pits and 3 core sites, located within the Application Area and the 100 m buffer zone around the area (in accordance with Interim Protocol), were identified for investigation. At each soil sample site, the profile and landscape around the site were described and soil samples were collected for submission to a NATA accredited laboratory for analysis in accordance with the Interim Protocol. Eight Soil Mapping Units were mapped within the Application Area and 100 m buffer.

Four of the 83 detailed sites investigated satisfied the BSAL criteria. However, none of the seven Soil Mapping Units identified during the assessment met the minimum threshold for declarable BSAL, whereby 70% of the sites within a Soil Mapping Unit meet the BSAL criteria.

As a consequence, a Site Verification Certificate is sought which acknowledges that no BSAL is present within the Application Area.

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1. INTRODUCTION

1.1. SCOPE

LFB Resources NL ("the Applicant", ABN 90 073 478 574), a 100% wholly owned subsidiary of Regis Resources Ltd (Regis), is seeking approval to develop and operate the McPhillamys Gold Project ("the Project"), approximately 8 km northeast of Blayney in the Central West of NSW (Figure 1).

The Project is classified as a State Significant Development (SSD) in accordance with Clause 5 (mining) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (State and Regional Development SEPP) because the Capital Investment Value would be more than $30 million.

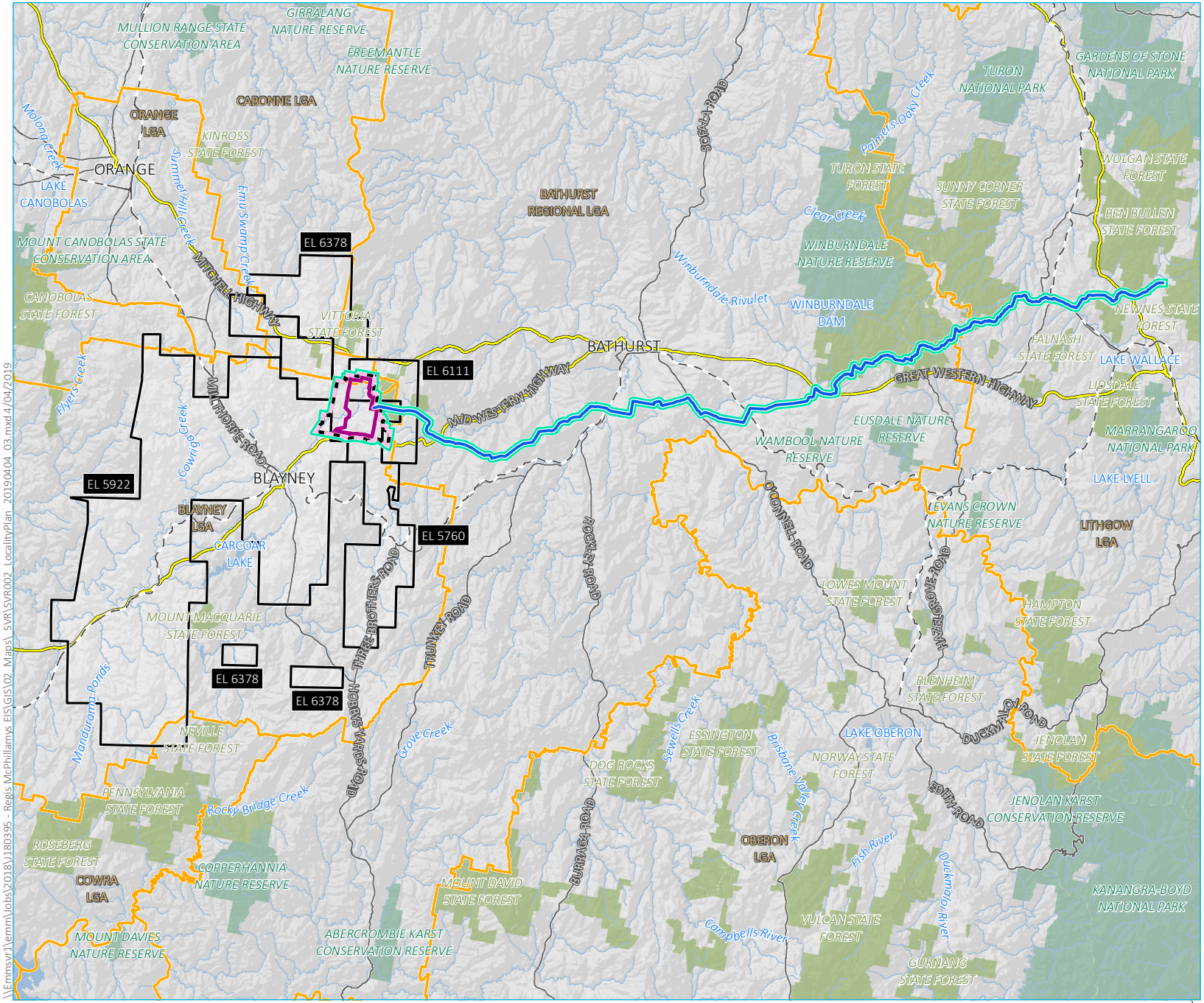
As the Project is a mining development within the meaning of Part 4AA of the State Environmental Planning Policy (Mining, Petroleum and Extractive Industries) 2007, Clause 50A of the Environmental Planning and Assessment Regulation 2000 requires that the development application be accompanied by either:

- a "Gateway Certificate", where the development occurs on land which meets the requirements of Biophysical Strategic Agricultural Land (BSAL); or
- a "Site Verification Certificate" that certifies that the land on which the proposed development is to be carried out is not Biophysical Strategic Agricultural Land.

The Applicant is seeking a Site Verification Certificate (SVC) for the land over which a mining lease will be required for the Project ("the SVC Application Area") and a 100 m buffer, as illustrated in Figure 2.

As such, this report has been prepared to support an application for an SVC to the Department of Planning and Environment (DPE) and has been prepared in accordance with the requirements of the Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land (OEH and OASFS, 2013).

The Applicant commissioned SSM to conduct a site soil survey within the SVC Application Area and 100 m buffer.





KEY

- Project Application Area (2,687.39 ha)
- SVC application area (1,825.27 ha)
- Mine development project area (2,513.47 ha)
- Proposed pipeline route
- Rail line
- Primary road
- Arterial road
- Named watercourse
- Waterbody
- NPWS reserve
- State forest
- Exploration lease boundary
- Local government area

Source: EMM (2019); Regis Resources (2019); DPE (2018); DFSI (2017); GA (2011)

0 10 20 km

GDA 1994 NSW Lambert

N

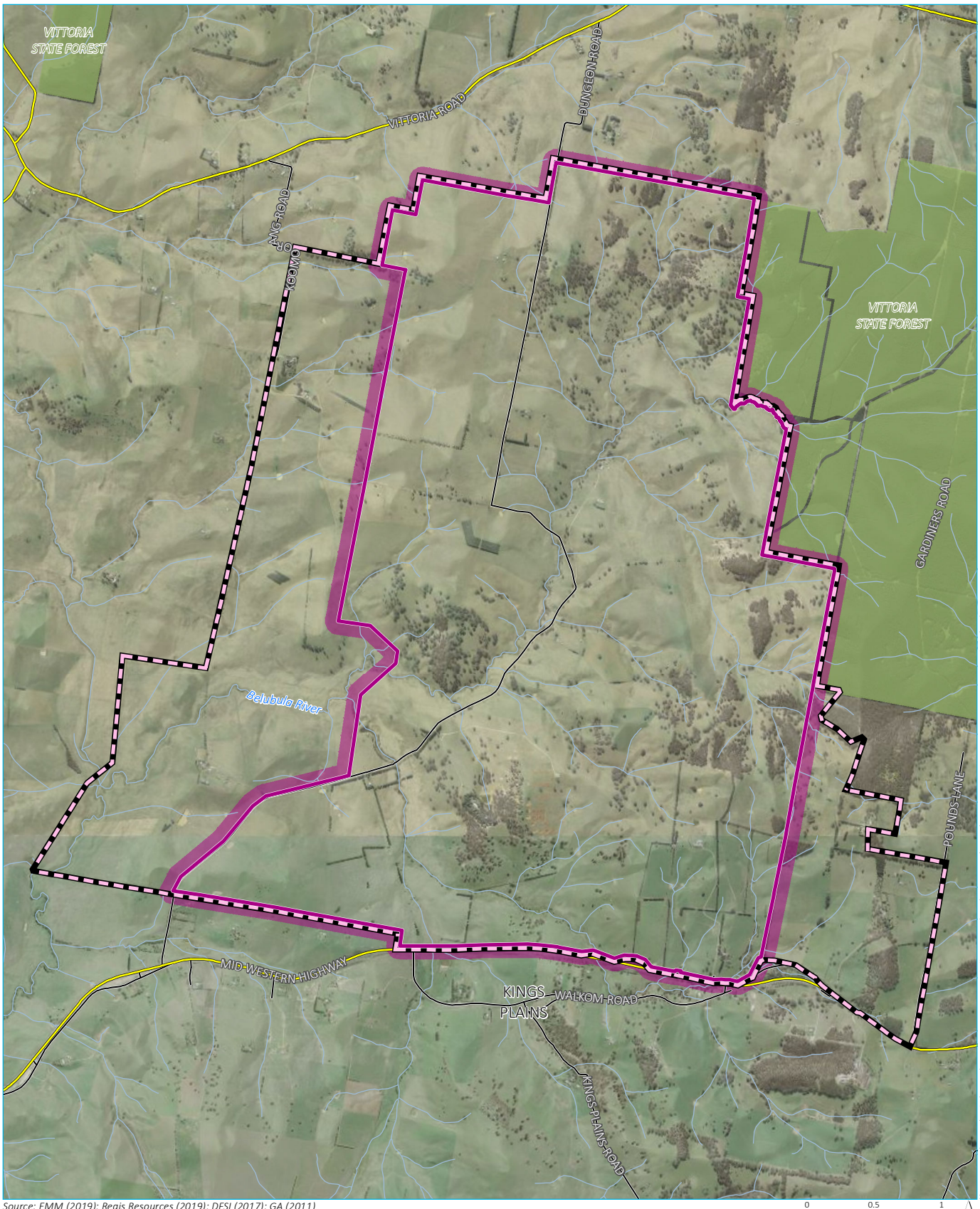
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Regional location

McPhillamys Gold Project
BSAL assessment
Figure 1

REGIS RESOURCES LTD

EMM creating opportunities



Source: EMM (2019); Regis Resources (2019); DFSI (2017); GA (2011)

0 0.5 1 km

GDA 1994 MGA Zone 55

N

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KEY

- SVC application area (1,825.27 ha)
- 100 m buffer zone (210.46 ha)
- Mine development project area (2,513.47 ha) (Note: boundary is offset for clarity)
- Main road
- Local road
- Watercourse/drainage line
- State forest

SVC application area

McPhillamys Gold Project
BSAL assessment
Figure 2

REGIS RESOURCES LTD

EMM creating opportunities

1.1.1. TERMINOLOGY

The following terms are used in this report and accompanying figures:

- SVC Application Area – this is the mining lease application area for the Project, and therefore the area to which this SVC application relates. As shown on Figure 2, the SVC Application Area sits within the broader Mine Development Project Area. No disturbance associated with the Mine Development requiring a mining lease is proposed outside the SVC Application Area..
- Project Application Area – the area in its entirety to which the development application for the Project will relate. This area is larger than the SVC Application Area, as shown on Figure 1. The McPhillamys Gold Project comprises both the proposed Mine Development and an associated pipeline corridor which will provide the necessary water supply for the Project. Therefore, the area that will be the subject of the development application for the Project comprises both the Mine Development project area and the pipeline corridor and is defined as the Project Application Area. It is noted that the pipeline corridor does not require a mining lease.

1.2. TOPOGRAPHY AND DRAINAGE

The SVC Application Area is in the headwaters of the unregulated Belubula River, which flows from northeast to southwest across the Application Area. The Belubula River is a tributary of the Lachlan River. Carcoar Dam is located on the Belubula River approximately 26 km downstream and southwest of the SVC Application Area.

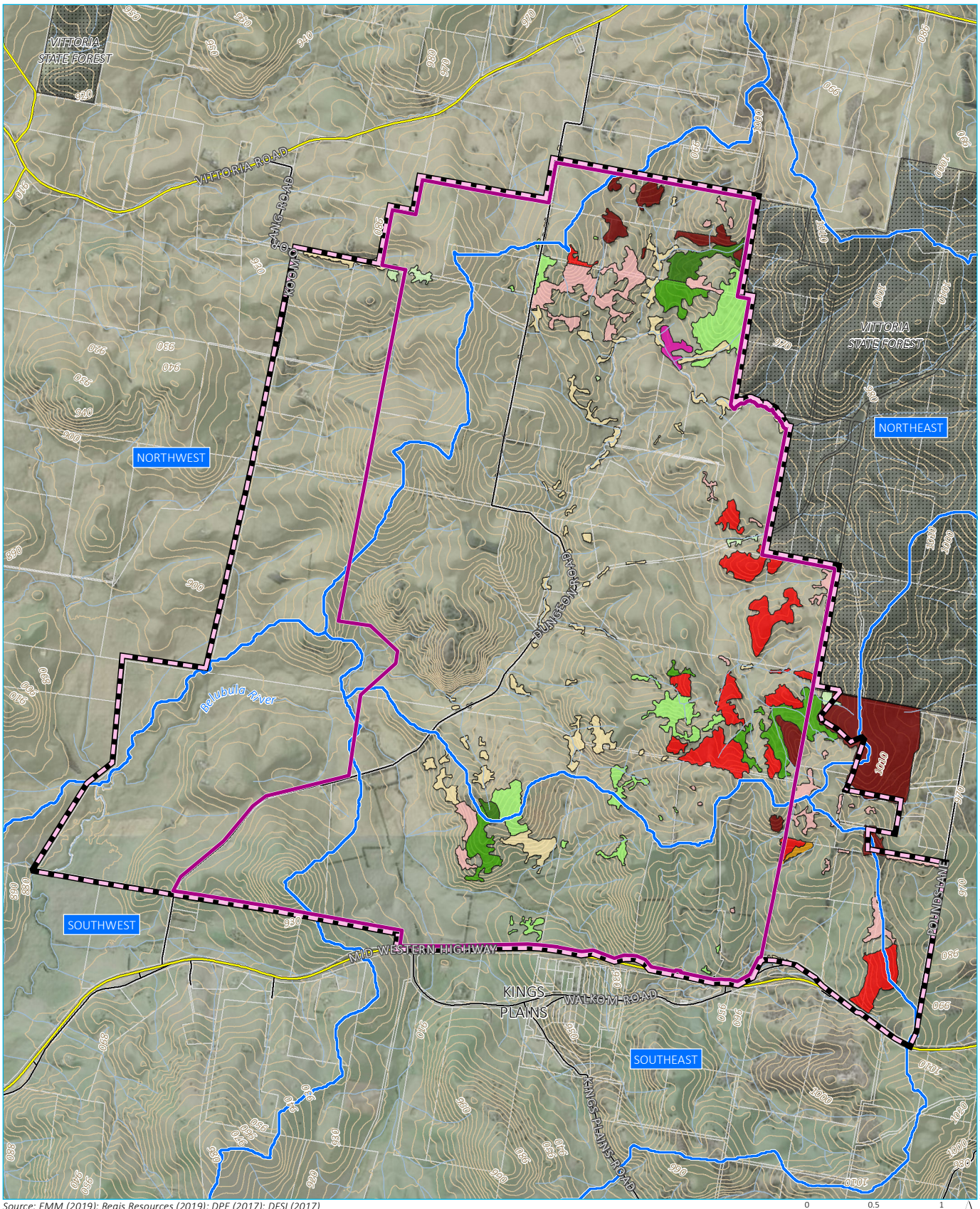
The SVC Application Area is located within an area covered by the following Water Sharing Plan:

- Water Sharing Plan for the Lachlan Unregulated Rivers and Alluvial Groundwater Sources 2012
    - Belubula River Upstream Carcoar Unregulated River Water Source.

Topography within the SVC Application Area is dominated by a series of rounded hills with maximum elevations ranging between 960 m AHD and 1100 m AHD (Figure 3). The valleys between the hills are generally less than 100 m wide with the exception of the southwestern section where the floodplain of the Belubula River, the regional drainage feature in the vicinity of the SVC Application Area and 100 m buffer is of the order of 1 km wide.

On a local level, the SVC Application Area contains four major drainage (sub-catchment) zones, as shown on Figure 3, and defined as follows.

- **Northeast** (1,190 ha) which is the majority of a 1,750 ha sub-catchment that forms the northeastern extremity of the Belubula River catchment. There is 120 m elevation difference within this section of the SVC Application Area. The major drainage line is a tributary of the Belubula River draining to the south-southwest and fed by essentially parallel tributaries that drain to the northwest and south-southeast.



Source: EMM (2019); Regis Resources (2019); DPE (2017); DFSI (2017)

0 0.5 1 km

GDA 1994 MGA Zone 55

N

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KEY

- SVC application area (1,825.27 ha)
- Mine development project area (2,513.47 ha) (Note: boundary is offset for clarity)
- Sub-catchment boundary
- Main road
- Local road
- Watercourse/drainage line
- Contour (5 m)
- Cadastre
- Vittoria State Forest

Plant community types

654 - Apple Box - Yellow Box dry grassy woodland of the South Eastern Highlands Bioregion
- Moderate/Good (High)
- Moderate/Good (Medium)
- Moderate/Good (Poor)
- Moderate/Good (Other)

727 - Broad-leaved Peppermint - Brittle Gum - Red Stringybark dry open forest on the South Eastern Highlands Bioregion
- Moderate/Good (High)
- Moderate/Good (Medium)
- Moderate/Good (Poor)

951 - Mountain Gum - Manna Gum open forest of the South Eastern Highlands Bioregion
- Moderate/Good (Medium)
- Moderate/Good (Poor)

1298 - Wet tussock grasslands of cold air drainage areas of the
- Moderate/Good (Poor)

Base map

McPhillamys Gold Project
BSAL assessment
Figure 3

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EMM creating opportunities

- **Southeast** (410 ha) is a strip approximately 2 km wide along the southern edge of the SVC Application Area. The eastern half of this catchment drains southwards towards the Mid Western Highway and joins a tributary of the Belubula, which then flows westward. This then joins a north flowing tributary of the Belubula River that drains approximately 1,900 ha. There is also a 120 m elevation difference within this section of the SVC Application Area.
- **Southwest** (70 ha) which occupies the southwestern corner of the SVC Application Area. This area drains overland flow to the south, west and northwest from Sturgeon Hill which occupies the southwestern corner of the SVC Application Area.
- **Northwest** (155 ha) which occupies a strip up to 700 m wide along the northwestern edge of the SVC Application Area. Drainage flows westward along five drainage lines that are essentially parallel, and one northward draining depression. Water from the northwest catchment joins the Belubula River near the southwestern corner of the Mine Development Project Area which is downstream of the SVC Application Area. There is a 60 m elevation difference within this section of the SVC Application Area.

1.3. EXISTING LAND USE

The Catchment Scale Land use data (geodatabase downloaded from http://data.daff.gov.au/anrdl/metadata_files/pb_luav5g9abll20160704.xml on 23/1/2017) shows that the majority of the SVC Application Area and 100 m buffer has and continues to be used for grazing of native and introduced pasture by sheep and cattle. There are sections of woodland in elevated parts of the SVC Application Area and 100 m buffer as well as scattered trees. Historically, some land within the SVC Application Area and 100 m buffer has been cultivated with crops subsequently cut for fodder, whilst grain has been harvested occasionally.

2. REVIEW OF EXISTING INFORMATION

2.1. SUMMARY OF INFORMATION SOURCES

The following soil and landscape information was selected for this report:

- Regional soil type and landscape mapping (Kovac *et al.*, 1989).
- Existing BSAL mapping (downloaded from https://www.planningportal.nsw.gov.au/record-access/SRLUP_SALBiophysical.zip on 20/10/2017).
- Regional geology mapping (Raymond et al. 1998) supplemented by mapping of faults over part of SVC Application Area and 100 m buffer supplied by the Applicant.
- Soil Profile Attribute Data Environment (eSPADE) soil profiles.

2.2. SOIL LANDSCAPES

The area around and including the SVC Application Area and 100 m buffer was mapped by Kovac *et al.*, (1989), who identified two soil landscapes as being present.

The elevated and undulating parts of the SVC Application Area and 100 m buffer were mapped as the Vittoria-Blayney Soil Landscape. Soil profiles in the Vittoria-Blayney Soil Landscape have a consistent pattern of loamy topsoil over clayey subsoil that is red in elevated parts of the landscape and tends to mottled yellowish brown in lower parts of the landscape. Kovac *et al.*, (1990) rated all of the different soil profiles of the Vittoria-Blayney Soil Landscape as being either Soil Land Capability Class III, IV or VI.

In addition, Kovac *et al.* (1989) mapped sections of the floodplain of the Belubula River as containing the Macquarie Soil Landscape. Although soil types in the Macquarie Soil Landscape are variable, all soil types described in this landscape were allocated to Land Capability Class I, II and III (Kovac *et al.*, 1990).

2.3. EXISTING BSAL MAPPING

Regional mapping of BSAL identifies BSAL as meeting the following criteria (OEH and OASFS, 2013):

- Access to a reliable water supply.

AND

- High or moderately high Inherent General Fertility for Land and Soil capability (LSC) class III.

OR

- Moderate or higher inherent general fertility for LSC Classes I or II as mapped by OEH.

The existing BSAL mapping (downloaded from https://www.planningportal.nsw.gov.au/record-access/SRLUP_SALBiophysical.zip on 20/10/2017) (Figure 4) appears to rely on the 1:250,000 scale mapping of Kovac *et al.*, (1989). Consequently, sections of the SVC Application Area associated with

the Macquarie Soil Landscape are mapped as BSAL whereas those sections of the SVC Application Area associated with the Vittoria-Blayney Soil Landscape are not identified as being BSAL.

The criteria listed above are different to those used for the detailed BSAL assessment described in Section 3.4 below.

2.4. GEOLOGY

Geology beneath the SVC Application Area is dominated by the Silurian (440 to 410 million years ago, [mya]) Anson Formation of the eastern province of the Lachlan Fold Belt (Figure 4). Rocks in the Anson Formation are meta-sediments and volcanics with mineralogy including quartz and feldspar.

The Anson Formation contains the Godolphin-Cooperhania thrust-fault zone (where ground on one side moves up over adjacent ground). The Godolphin-Cooperhania thrust-fault zone also contains many closely spaced minor faults (T. Ridges, pers comm.).

The Anson Formation is bounded to the west by the Godolphin fault. West of the Godolphin fault is the Ordovician (500 to 444 mya) Byng and Blayney Volcanics (Figure 4). The Byng Volcanics consist of volcanic and volcaniclastic rock that are rich in magnesium and iron, with a low proportion of quartz whilst the Blayney Volcanics comprise a sequence of basaltic lava and volcaniclastics (Duerden, 1999).

Comprehensive drilling across the SVC Application Area has found an almost vertical dip to most stratigraphy (T. Ridges, pers comm.). This means that the land surface cuts across many layers of rock rather than consisting of the exposed surface of a few rock layers.

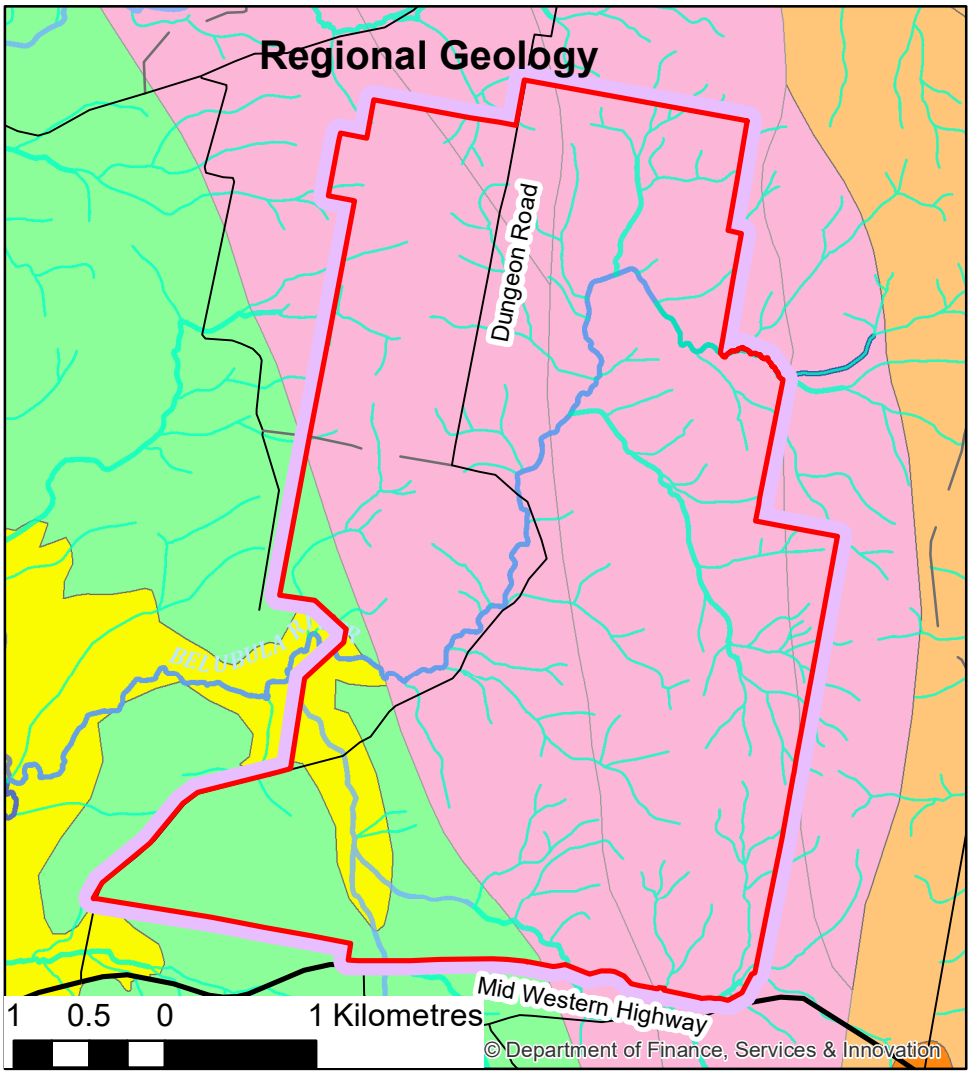
The Belubula River floodplain is mapped as Quaternary (2.6 mya – present) Alluvium. This geologic unit generally corresponds to the Macquarie Soil Landscape; however, it is noted that there are differences between the extent of alluvium in the BSAL and geology maps in Figure 4.

2.5. ESPADE SOIL PROFILE DATABASE

A search of the eSPADE soil profile database did not find any soil profile information within or adjacent to the SVC Application Area.



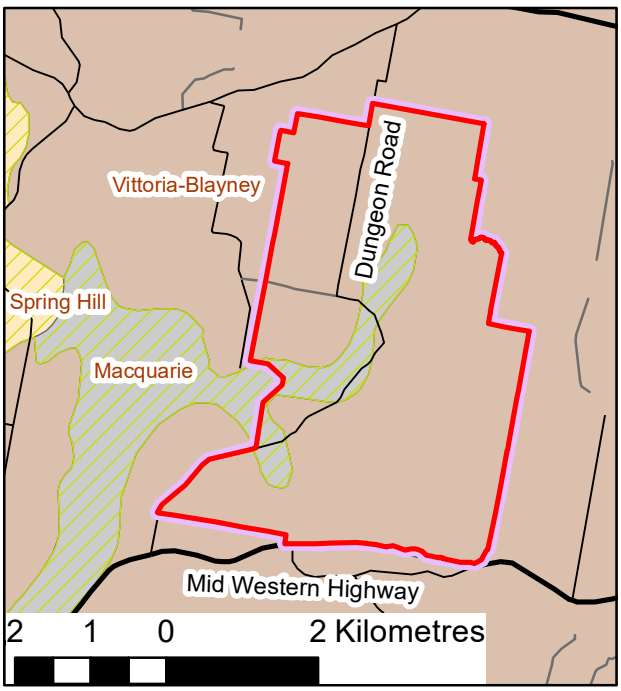
Regional Geology



Geology Legend

- Quaternary Alluvium
- Tertiary basalt
- (Devonian) Cunningham Formation
- (Silurian) Anson Formation
- (Ordovician) Byng and Blayney Volcanics

Soil Landscapes and Regional BSAL



Regional BSAL

BSAL

Reference

- SVC Application Area (1,825 ha)
- 100 m buffer (210 ha)

Projection: UTM
Project Area: EMM Consulting
Geology: Regis Ltd
Soil Landscapes: Kovac et al. (1989)
BSAL: NSW OEH
Watercourses: NSW Spatial Services

Figure 4
REGIONAL GEOLOGY SOIL LANDSCAPES AND BSAL

3. SITE BSAL VERIFICATION

3.1. INTRODUCTION

The Interim Protocol identifies BSAL as being land with a rare combination of natural resources which renders it as being highly suitable for agriculture as it is naturally capable of sustaining high levels of productivity whilst requiring minimal management practices to maintain this high quality.

The purpose of this assessment is to assess whether parts of the SVC Application Area and a 100 m buffer satisfy the BSAL criteria as outlined in Figures 1 and 2 of the Interim BSAL Protocol (OEH and OASFS, 2013). Figure 1 outlines the method to assess whether the SVC Application Area and 100 m buffer has access to a reliable water supply, while Figure 2 describes the process to assess the BSAL status of the soil and landscape.

3.2. EXTENT OF ASSESSMENT AREA

The area assessed is the 1,825 ha SVC Application Area determined by the applicant plus a 100 metre buffer zone around the SVC Application Area covering 210 ha, as required by the Interim Protocol. This covers 2,035 ha as shown in Figure 2.

3.3. WATER SUPPLY RELIABILITY

The first step in assessing the BSAL status is to determine whether the SVC Application Area and 100 m buffer has access to a reliable water supply as defined by Figure 5.

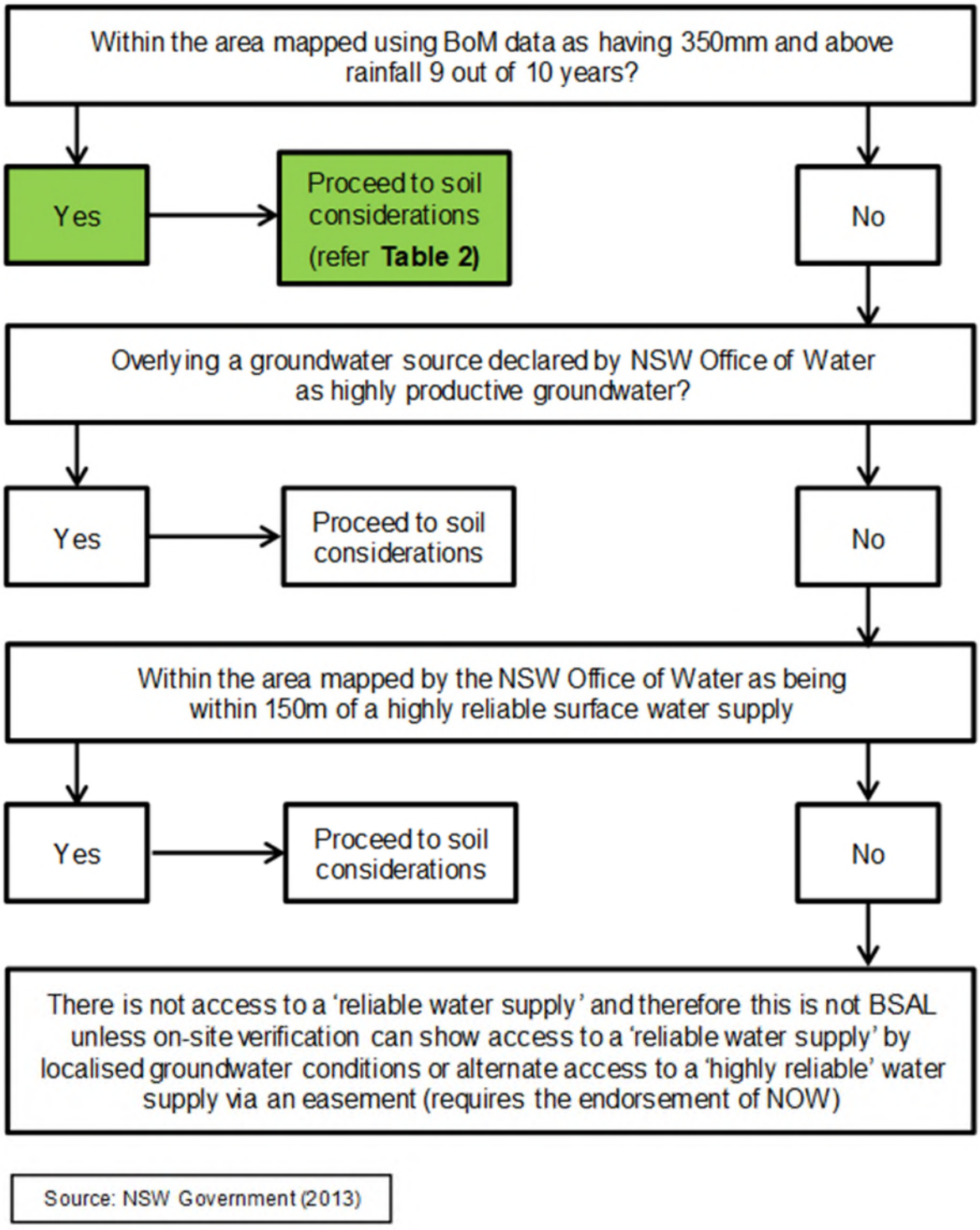


Figure 5 Assessment of Water Supply reliability (from OEH and OAFS, 2013).

The parts of NSW with reliable rainfall have been mapped by the NSW Office of Water. This map is reproduced in Figure 6 and shows that the SVC Application Area and 100 m buffer have a rainfall pattern that classifies it as receiving reliable rainfall. As a result, Figure 6 indicates that a BSAL soil assessment is required.

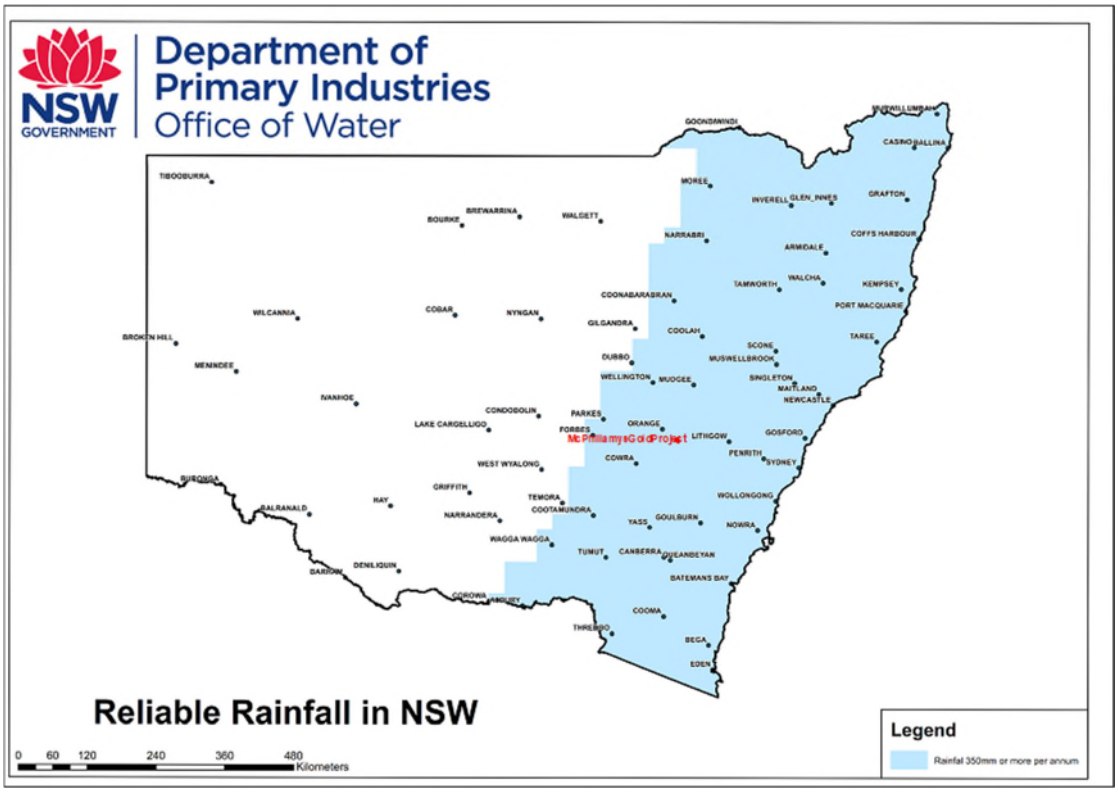


Figure 6. Map of reliable rainfall in NSW downloaded from: www.water.nsw.gov.au/__data/assets/pdf_file/0006/549330/law_use_reliable_rainfall.pdf on 7/4/2014.

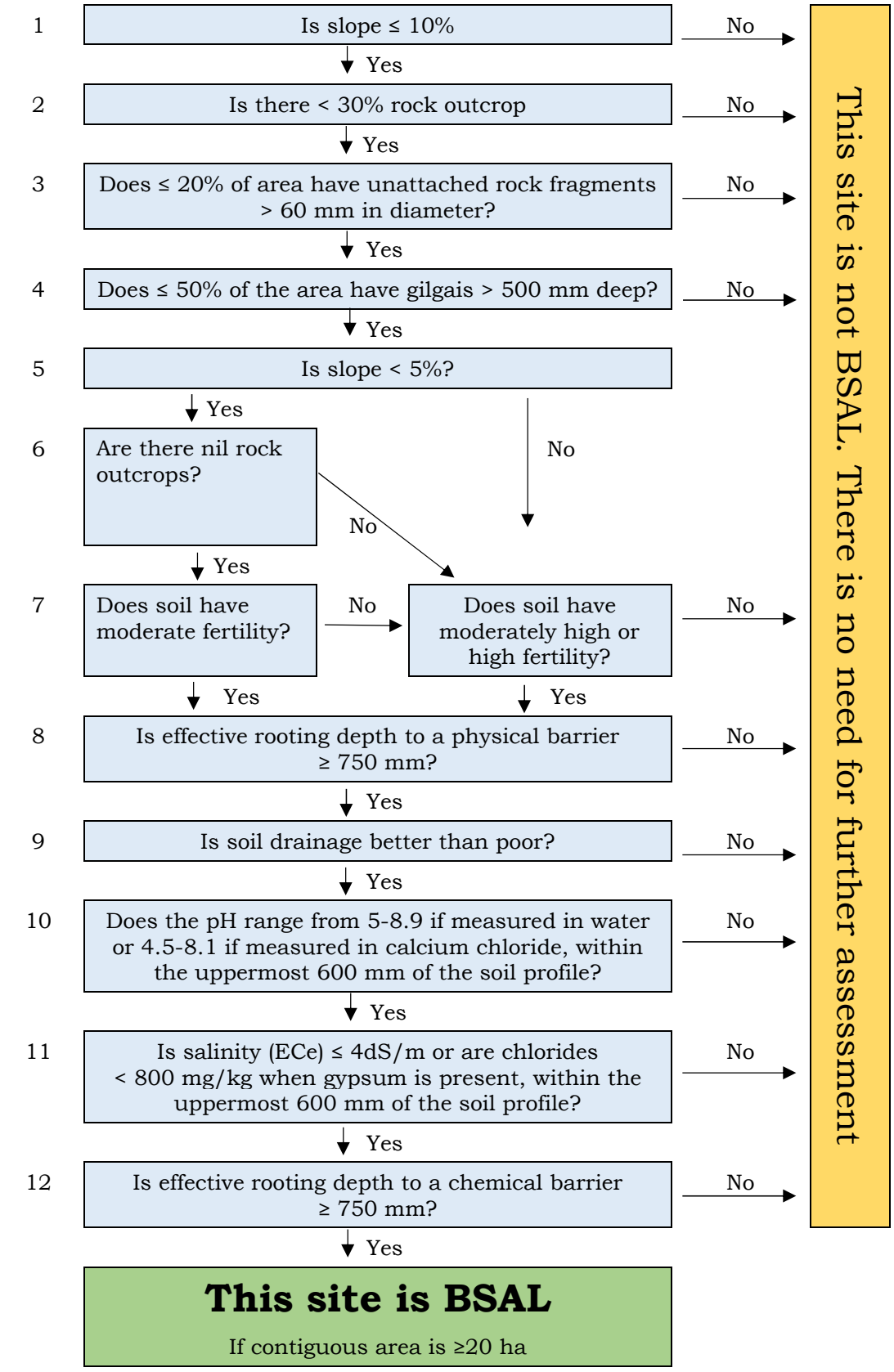
3.4. BSAL ASSESSMENT PROCESS

The Interim Protocol (OEH and OASFS, 2013) describes BSAL assessment as a sequential analysis with 10 stopping rules (steps 1, 2, 3, 4, 5 to 7, 8, 9, 10, 11 and 12 in Figure 7). In practice, laboratory analysis of soil samples is required for the one rule assessed by steps 5 to 7, and the separate rules assessed by steps 10, 11 and 12 shown in Figure 7. As a result, all sites that passed step 4 in Figure 7 were described in detail, and had samples subjected to laboratory analysis.

3.4.1. Step 1. Slope Analysis

A slope assessment for the SVC Application Area and 100 m buffer was conducted using analysis of photogrammetry data supplied by the Applicant. Photogrammetry data was processed using ArcGIS by RW Corkery and Co to map those areas of the SVC Application Area with slope greater than 10%.

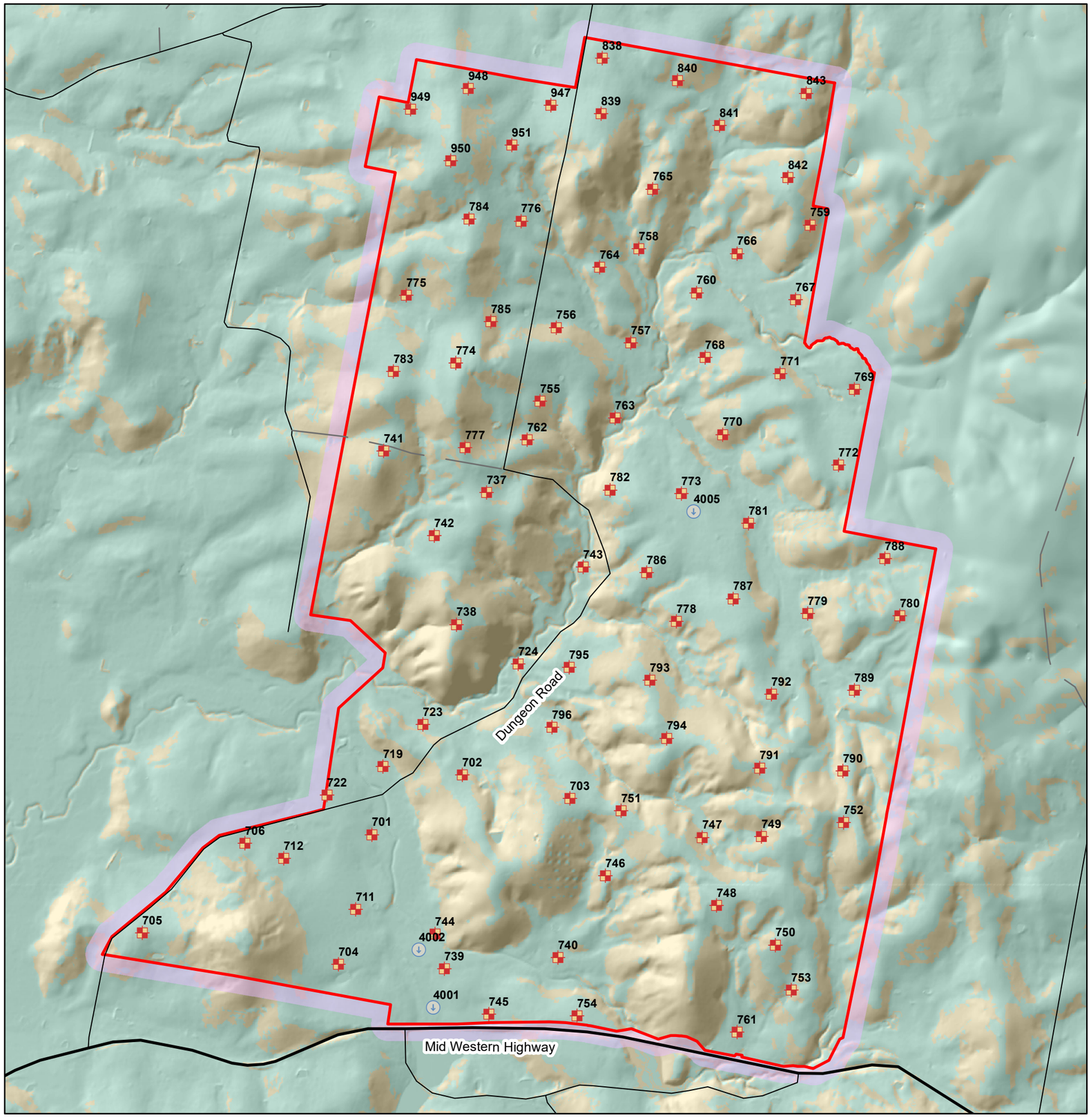
The slope analysis identified that 826 ha of the SVC Application Area and 100 m buffer had a slope greater than 10% and 1,209 ha had slopes flatter than 10% (Figure 8).



Source: OEH and OASFS (2013)

Figure 7. Flow chart for site assessment of BSAL.

N
W E
S



Reference

Site_Type

- Core
- Detail Pit
- SVC Application Area (1,825 ha)
- 100 m buffer (210 ha)

Photogrammetry Slope Class

- 0 to 10% (1,209 ha)
- >10% Not BSAL (826 ha)

SCALE 1:25,000 (A3)

0 0.25 0.5 1 1.5 Kilometres

Projection: UTM
Project Area: EMM Consulting
Slope: Regis Ltd and RW Corkery
Watercourses: NSW Spatial Services

Figure 7
SLOPE ANALYSIS

3.4.2. Step 2. Rock Outcrop

A search for rock outcrop in areas flatter than 10% slope was made in aerial images of the SVC Application Area and 100 m buffer, and none was detected. This search was supported by field observations where soil cover was observed in all areas examined that were flatter than 10% slope.

3.4.3. Steps 3 to 12. Phase I - Sample Site Selection

The sampling pattern aimed to satisfy two goals. These were to sample the range of expected soil types across the SVC Application Area and 100 m buffer and to have at least one sample in each 20 ha area that passed stopping rules 1 (slope <10%) and 2 (<30% rock outcrop).

This was achieved by selecting soil sample sites using the following system:

i) A square grid with rows and columns 375 m apart was created across the SVC Application Area and 100 m buffer.

ii) Sample sites in areas with slopes greater than 10% were deleted.

iii) Sample sites within each cell were moved to avoid watercourses, dams, houses and fence lines.

iv) A 375 m diameter circle was drawn around each sample site.

v) The 375 m circle around each sample site was checked to establish that, as far as practicable, all areas with slopes flatter than 10% were within 375 m of a sample site. Sample sites were moved until satisfactory soil sampling coverage was achieved.

This resulted in 86 sample sites (83 soil test pits and 3 core sites) across the SVC Application Area and 100 m buffer. 83 sites in the 1,209 ha of the SVC Application Area where the slope was flatter than 10%, giving an average of 14.6 ha/site.

The rounded hills that characterise the SVC Application Area and 100 m buffer resulted in 14% of these sample sites being on hill crests or ridges, 27% of sites on upper slopes, 33% midslope, 15% on lower slopes, and 12% of sites in valley floors.

3.4.4. Steps 3 to 12. Phase II – Profile Description

The site soil survey team consisted of a representative of the Applicant, an excavator operator, two soil surveyors and field assistants.

Profile descriptions and soil sampling were undertaken by accredited soil scientists Pat Hulme and Geoff Kew. Both hold PhDs in soil science, are Certified Professional Soil Scientists (CPSS) and have decades of experience in undertaking soil surveys.

Soil sample sites were developed to 1.4 m depth (or refusal) using a 5 tonne mini-excavator for pits and a jackhammer driven sampler for cores. The location of each test pit was recorded using a hand-held GPS with a position accuracy of approximately 5 m.

Field data that were recorded for each of the 86 soil test sites (Appendix II) included:

- Soil test pit observations and information: GPS location, nature of exposure, slope, slope measurement method, aspect, site morphology, slope morphology, landform element, aspect, microrelief type, microrelief depth, microrelief extent, lithology, lithology identification method, rock outcrop, current land use, predevelopment vegetation community, growth form, ground cover percentage, current land use, site disturbance, current surface condition, predicted dry surface condition and predicted wet surface condition.
- Detailed soil profile observations for each horizon: lower depth, moisture, grade of pedality, fabric, size and shape of dominant and subdominant peds. Type, amount, distribution, orientation, weathering and size of coarse fragments. Type, amount, strength, form and size of segregations. Moist colour of all horizons and dry colour of A2 horizons. Type, abundance, colour and contrast of mottles. Field texture. Field tests for pH, effervescence to dilute hydrochloric acid, slaking, dispersion, $EC_{1:5}$ for selected horizons. SoilPAK score and boundary distinctness.
- Overall soil profile observation: effective rooting depth, profile permeability, profile drainage, base of observations, substrate.
- Photographs of site and soil profile.

This gives a total of more than 150 properties recorded for each soil test pit.

The terms used to describe soil properties were applied according to definitions in the eDIRT user manual (OEH, 2016), which is based on 'the yellow book' (NCST, 2009).

Soil properties were recorded on field sheets and entered into a custom soil database. From this database, data were extracted to estimate BSAL rating and used to construct logs of profile properties for each soil sample site.

Data was also transferred from the database to the NSW government's SALIS database.

The **Profile Drainage** stopping rule of step 9 in Figure 7 is determined by whether a profile is poorly drained. Poorly drained soil is defined by the Interim Protocol as having one or more of the following characteristics:

- Bleached horizon, defined as a dry Munsell value of 7 or 8 and chroma of 4 or less;
- Grey or gleyed colour (where grey is a custom definition of moist Munsell value of 4 or more and chroma of 2 or less); or
- Mottles that occupy more than 10% of a layer, are distinct or prominent, and not biological in nature.

These characteristics can apply to any layer shallower than 75 cm.

Samples from the A2 horizon of soil test pits that were moist during the field survey were dried in an oven at 30°C for the dry Munsell colour to be assessed accurately.

3.4.5. Steps 3 to 12. Phase III – Laboratory Analysis

Laboratory analysis of soil samples was undertaken to assist in the identification of soil associations, and to satisfy the requirements of the

Interim Protocol that samples from all detailed soil test pits are subjected to laboratory analysis.

Soil samples were collected from the Interim Protocol prescribed sampling depths of 0 to 5 cm, 5 to 15 cm, 15 to 30 cm, 30 to 60 cm and 60 to 100 cm for all soil sample sites, unless the depth range covered the boundary between the A and B horizons of duplex profiles. In duplex profiles where a sample range covered the A to B horizon boundary, the depth range was shortened and only one horizon was sampled.

Samples from 82 of the soil sample sites were submitted to the NATA and ASPAC accredited (Appendix I) Incitec Pivot Laboratories for analysis.

Laboratory analysis was not conducted on samples from 4 soil test pits as:

- two (OM770 and OM779) had field slope >10%; and
- two (OM756 and OM759) displayed an effective rooting depth (physical barrier) less than 75 cm.

Both slope greater than 10% and a physical barrier that impedes root penetration at depths shallower than 75 cm are stopping rules in Figure 7.

Soil chemical properties required for assessing BSAL according to Figure 7 as well as for classifying soil in accordance with the ASC were measured for all soil samples analysed. These soil chemical properties were:

- pH in water and $CaCl_2$;
- exchangeable cations of calcium, magnesium, potassium, sodium and aluminium;
- EC1:5; and
- chloride.

The following additional chemical properties relevant to agricultural land management, but not BSAL were also analysed.

0 to 5 cm and 5 to 15 cm depth samples only:

Soil colour and texture, organic carbon, Colwell phosphorus, Phosphorus Buffer Index, KCl sulphur, DTPA copper, DTPA zinc, DTPA manganese, DTPA iron, Hot CaCl2 boron, extractable molybdenum and Emerson Class.

All depths:

Nitrate nitrogen, ammonium nitrogen.

Particle size distributions were measured using the hydrometer method for all depths in 32 soil test pits that were selected as being representative of the range of texture profiles observed across the SVC Application Area and 100 m buffer. The proportions of clay, silt, fine sand and coarse sand was reported for each layer in each of these soil test pits (Appendix III).

The Exchangeable Calcium Percentage, Exchangeable Magnesium Percentage, Exchangeable Potassium Percentage, Exchangeable Sodium Percentage, Exchangeable Aluminium Percentage, Calcium to Magnesium ratio and Electrochemical Stability Index were calculated for each sample tested, as was ECe (electrical conductivity of saturated extract).

The laboratory testing program provided for the analysis of a total of 75 chemical properties and 40 calculated ratios in each soil test pit, and an additional 25 properties where particle size distribution was measured.

The Great Groups of many of the Soil Orders of the ASC (Isbell, 2002) rely on an estimate of the base status. This is essentially the Cation Exchange Capacity divided by the clay content expressed as a proportion. This ratio was calculated from the laboratory measured cation exchange capacity and the clay content measured in the particle size distribution where available, or the clay content estimated from field texture in other cases.

Five soil test pit profiles (OM703, OM737, OM762, OM793 and OM794) were observed as having the appearance of Ferrosols (Krasnozems) which Kovac *et al.*, (1990) reported as being present in the Vittoria-Blayney soil landscape that includes sections of the SVC Application Area and 100 m buffer. Subsequently samples from the subsoil of these six soil test pits were analysed for free iron by SESL Australia Pty Ltd, a NATA and ASPAC accredited laboratory (Appendix I).

3.4.6. Steps 3 to 12. Phase IV – Soil Classification

Each soil test pit site was classified to Australian Soil Classification (ASC) family level according to Isbell (2002). As a result, each soil test pit was allocated to:

- ASC order;
- ASC suborder;
- ASC Great Group;
- ASC Subgroup;
- ASC Family properties of:
    - topsoil thickness;
    - gravel and texture;
    - subsoil texture; and
    - soil depth.

3.4.7. Steps 3 to 12. Phase V – Soil Mapping Units

The Interim Protocol indicates that soil across the SVC Application Area and 100 m buffer should be mapped as units that consist predominantly of soil of the same ASC Great Group. This requirement proved impracticable in the SVC Application Area and 100 m buffer because the pattern of soil properties was controlled by large short-range variation in parent material which is caused by the vertical bedding planes of the underlying rocks noted in Section 2.4. This variation was overlaid by the variation in soil properties expected with position in the landscape. The result was that examples of many soil types were spread across the SVC Application Area and 100 m buffer rather than being clustered together.

The mapping approach adopted in the assessment was to map soil across the SVC Application Area and 100 m buffer as soil associations rather than soil types. A soil association is a mapping unit that has two or more soil types in a regularly repeating pattern that is generally associated with landscape features (Powell, 2008).

3.5. SOIL ASSOCIATION DESCRIPTIONS

Soil Associations across the SVC Application Area and 100 m buffer were created by grouping profiles that had some properties in common.

The first division was to separate valley floor and upland soil associations. The Alluvial Chromosols, Sodosols and Dermosols are parts of the Kovac *et al*. (1990) Macquarie Soil Landscape while the upland soil associations are equivalent to the Vittoria-Blayney Soil Landscape.

The Vittoria-Blayney Soil Landscape was divided into sites that were well drained (Red Chromosols and Dermosols), those with impeded drainage (Manganic Chromosols and Dermosols on either Byng Volcanics or Anson Formation), and leached profiles on upper and mid slopes (Mesotrophic and Eutrophic Brown Dermosols and Chromosols and Poorly Drained Brown Chromosols, Dermosols and Kurosols).

Soil Association boundaries were fine-tuned using digital soil maps of clay content and exchangeable aluminium percentage of the 30 to 60 cm layer. created using regression kriging (Malone, 2013) with covariates from the Digital Elevation Model used to map slope across the SVC Application Area.

The patterns of soil chemistry described in the following sub-sections indicate that there were measurable differences between the Soil Associations of the SVC Application Area and 100 m buffer despite the range of soil types within each Soil Association. Patterns of Soil Associations are shown in Figure 9, while properties of each Soil Association are summarised below and described in more detail in Section 3.5.1 to Section 3.5.8.

Alluvial Chromosols, Sodosols and Dermosols – Situated on valley floors beside watercourses. Subsoil colour was generally grey, topsoil was generally more clayey than other soil associations in SVC Application Area and 100 m buffer.

Red Chromosols and Dermosols – Subsoil in each pit in this Soil Association was red and clayey. Situated in elevated parts of the landscape, often on the eastern side of a hill crest. Stable subsoil structure.

Manganic Chromosols and Dermosols on Byng Volcanics – Situated on the mid and lower slopes and developed on the Ordovician (Byng and Blayney) Volcanics. The majority of soil test pits in this Soil Association had either ferromanganiferous or manganiferous nodules in the subsoil.

Manganic Chromosols and Dermosols on Anson Formation – Similar soil and landscape properties to the Manganic Chromosols and Dermosols on Byng Volcanics Soil Association however more acidic and developed on the Anson Formation.

Mesotrophic and Eutrophic Brown Dermosols and Chromosols – Situated on the mid and upper slopes of a north-south trending ridge in the centre of the SVC Application Area and underlain by the Anson Formation. Subsoil in this Association was more acidic and more clayey than either of the Manganic Soil Associations.

Poorly Drained Brown Chromosols, Dermosols and Kurosols – Predominant Soil Association along the eastern edge of the SVC Application Area and 100 m buffer. Profiles of this Soil Association were strongly acidic with generally elevated Exchangeable Aluminium Percentage through the full depths sampled.

Strongly Sodic Dermosol – This Soil Association was mapped around one site that was so much more alkaline, sodic and saline than all other sites assessed that it was considered a separate mapping unit.

N
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Reference

Site BSAL Rate

- Fail
- OK
- SVC Application Area (1,825 ha)
- 100 m buffer (210 ha)

Slope Assessment

- Photogrammetry Slope > 10%

Soil Mapping Unit

- Alluvial Chromosols, Sodosols and Dermosols
- Red Chromosols and Dermosols
- Manganic Chromosols and Dermosols on Byng Volcanics
- Manganic Chromosols and Dermosols on Anson Formation
- Mesotrophic and Eutrophic Brown Dermosols and Chromosols
- Poorly Drained Brown Chromosols, Dermosols and Kurosols
- Strongly Sodic Dermosol

SCALE 1:25,000 (A3)

0 0.25 0.5 1 1.5 Kilometres

Projection: UTM
Project Area: EMM Consulting
Slope: Regis Ltd and RW Corkery
Watercourses: NSW Spatial Services

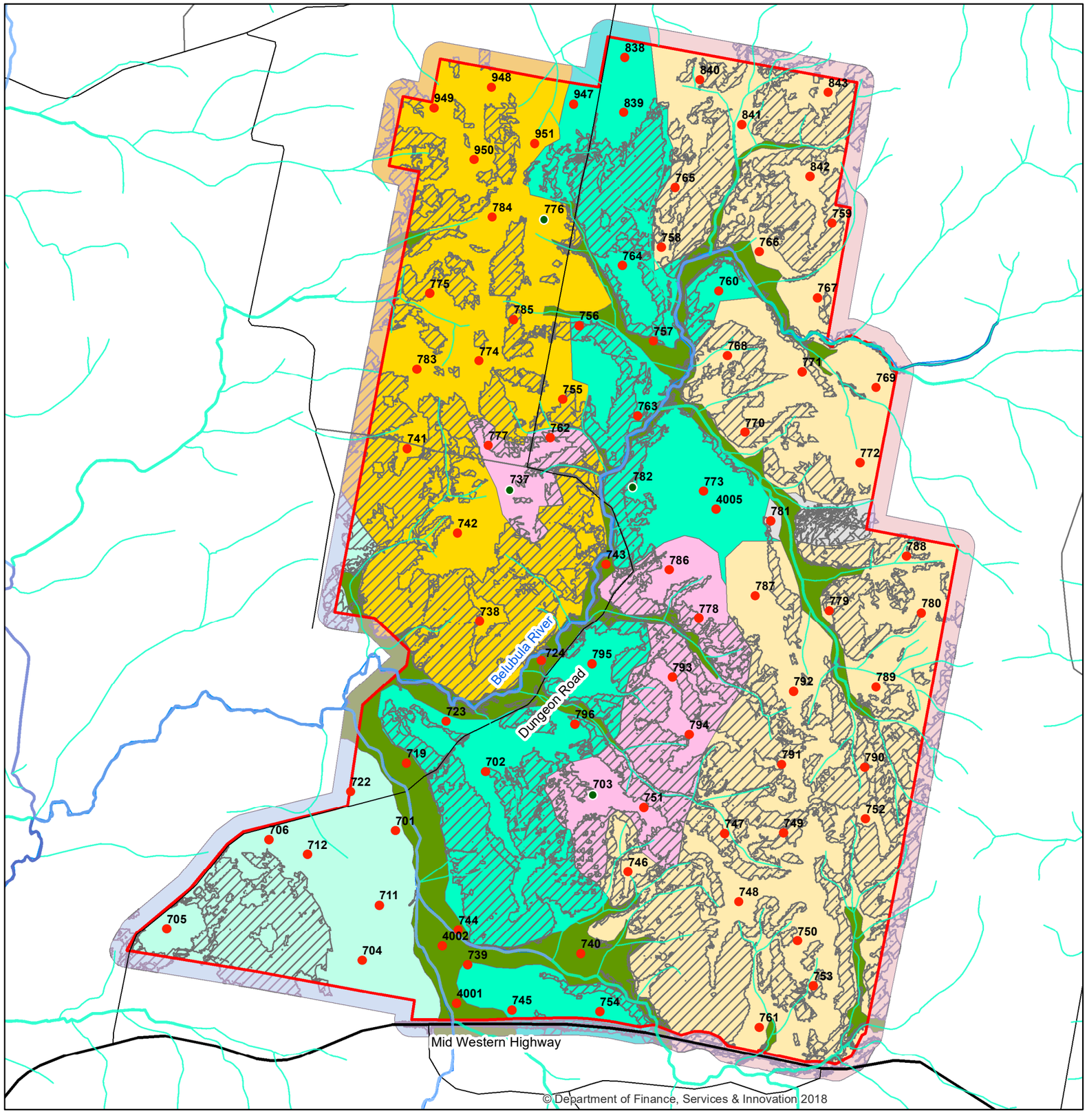
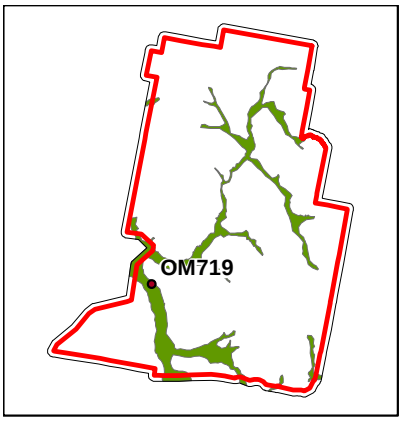


Figure 9
SOIL TEST SITES AND SOIL ASSOCIATIONS

3.5.1. Alluvial Chromosols, Sodosols and Dermosols Soil Association (8 sites over 181 ha)



The Alluvial Chromosols, Sodosols and Dermosols Soil Association was mapped in valley floors. The floodplain appears to consist of at least two terraces near OM701 (south of OM719 on sketch to right. The boundary between the Alluvial Chromosols, Sodosols and Dermosols Soil Association and neighbouring Soil Associations was convoluted because it was influenced by upslope land shape and hydrology of the floodplain.

All sites in the Alluvial Chromosols, Sodosols and Dermosols Soil Association were rated as having poor BSAL drainage. This soil variation is common in alluvial landscapes and was too fine to allow individual mapping of these soil types at the 1:25,000 scale mapping required by the Interim Protocol.

This poor drainage was associated with potential for permeable soil layers to become saturated. The topsoil was often underlain with a bleached A2 horizon over a dark, clayey, often mottled subsoil. The bleached A2 horizon and mottling in this soil type was reinforced by the common presence of patches of pinrushes scattered through the association. Pinrushes are a sign of excessive wetness. This soil tends to become saturated and not trafficable during prolonged periods of wet weather, so is generally suitable for grazing only during summer months (J. Gordon. pers comm.)

Approximately 89% of the 181 ha mapped as Alluvial Chromosols, Sodosols and Dermosols Soil Association had slopes flatter than 10%, so was subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7. The steep areas were predominantly banks of watercourses and water storage dams.

Representative Soil Test Pit Profile Description: Alluvial Chromosols, Sodosols and Dermosols Soil

Soil Test Pit: OM719	
	
Soil Test Pit OM719	**Landscape view, soil test pit OM719**
Australian Soil Classification Order	Chromosol (3), Sodosol (3), Dermosol (2)
Australian Soil Classification Sub-order	Black (4), Grey (3), Brown (1)
Representative Soil Test Pits	OM719, OM724, OM740, OM743, OM744, OM757, OM4001, OM4002
Manganic Profiles	None
Bleached A2 Horizon	62%
Mottling	38%
BSAL Drainage	Poor (100%)
Slope Classes (whole Association)	160 ha ≤ 10%, 20 ha steeper than 10%

3.5.1.1. Alluvial Chromosols, Sodosols and Dermosols Soil Association Chemistry

The chemistry of the soil types of the Alluvial Chromosols, Sodosols and Dermosols Soil Association (Figure 10) show an increase in pH, salinity [measured as ECe, (dS/m)] and Cation Exchange Capacity (CEC) with depth. There was also very large variation in CEC for the 30 to 60 and 60 to 100 cm layers. The cation ratios show an increase in the proportion of sodium and a decrease in the proportion of calcium with depth (Figure 10).

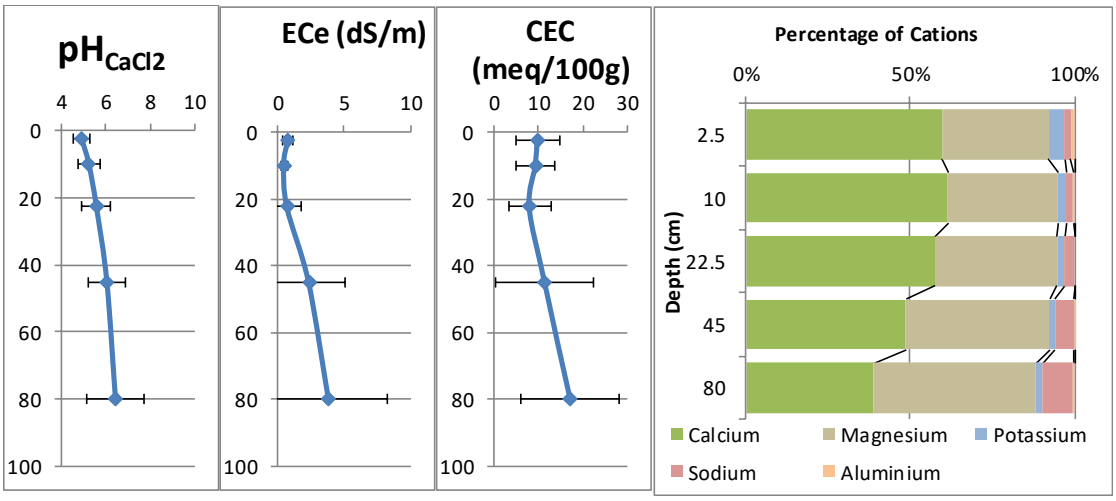
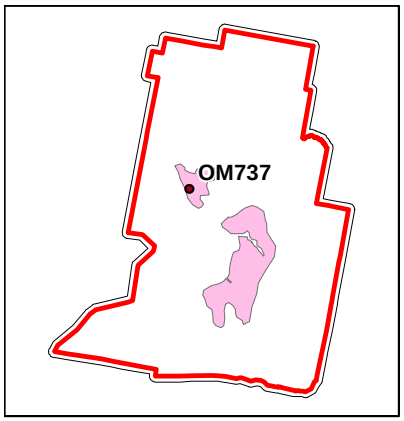


Figure 10. Soil chemistry summary for the Alluvial Chromosols, Sodosols and Dermosols Association

Laboratory testing was conducted on samples from all soil test pits described in the Alluvial Chromosols, Sodosols and Dermosols Soil Association with the results presented in Appendix III.

3.5.2. Red Chromosols and Dermosols Association (9 sites over 144 ha)



The Red Chromosols and Dermosols Association was mapped in an area near the centre of the SVC Application Area and 100 m buffer. The Red Chromosols and Dermosols Association was situated on the upper slopes and crests of some small hills within the Anson Formation. This Soil Association was generally observed on sites with an easterly aspect and this position on the landscape suggests the possibility that it was either deposited as windblown dust, or it is the remnant of basaltic parent material.

The profile of this Soil Association was generally that of a red or brown clay loam over a red, light to medium clay subsoil. The ASC of this Soil Association was split equally between Chromosols (duplex soils) and Dermosols (gradational soils). Whilst it was observed during the site soil survey that two thirds of the soil test pits had evidence of previous prolonged waterlogging in the form of manganese nodules, none of the soil test pits were observed to have mottled subsoil and only one had a Bleached A2 horizon.

The soil properties of this Soil Association indicate that it can support grazing, however the pH of the topsoil lower than optimum. The exchangeable aluminium percentage was generally higher than optimum whilst measured nutrient levels were suboptimal. However, the stable soil structure of this Soil Association indicates that it is better able to support cultivation than the other Soil Associations identified across the SVC Application Area and 100 m buffer.

Approximately half the 144 ha mapped as of the Red Chromosols and Dermosols Soil Association had slope flatter than 10%, so will be subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7.

Representative Soil Test Pit Profile Description: Red Chromosols and Dermosols

Soil Test Pit: OM737	
	
Soil Test Pit OM737	**Landscape view, soil test pit OM737**
Australian Soil Classification Order	Chromosol (5), Dermosol (4)
Australian Soil Classification Sub-order	Red (9)
Representative Soil Test Pits	OM703, OM737, OM751, OM762, OM777, OM778, OM786, OM793, OM794
Manganic Profiles	67%
Bleached A2 Horizon	11%
Mottling	None
BSAL Drainage	Moderately well (67%), Well (22%), Poor (11%)
Slope Classes	67 ha ≤ 10%, 78 ha steeper than 10%

3.5.2.1. Red Chromosols and Dermosols Association Chemistry

Whilst this Soil Association was rated as having good structure for root growth to 70 cm, laboratory analysis indicated that the topsoil was strongly acidic and tended to have elevated exchangeable aluminium percentage. The soil chemistry summary in Figure 11 showed a consistent pattern of a strongly acidic topsoil (average pH in the 0 to 5 cm layer was 4.9) over a less

acidic subsoil and measured CEC was low throughout the soil profile despite the elevated subsoil clay content. Salinity (ECe) was very low except for the shallowest layer (0 to 5 cm) where ECe was slightly elevated. It is notable that the exchangeable aluminium accounted for a large proportion of the cations present in the 0 to 5 cm and the 5 to 15 cm layers.

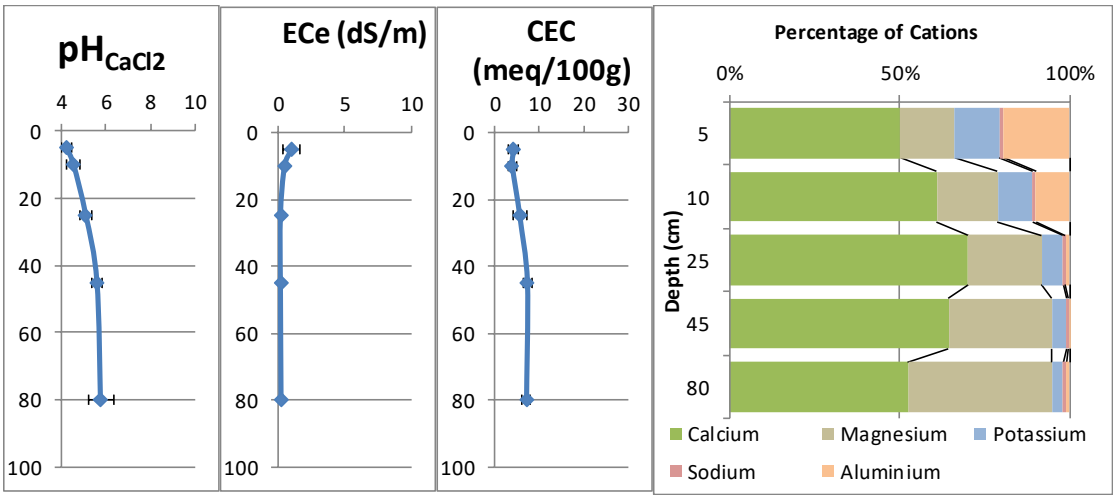


Figure 11. Soil chemistry summary for the Red Chromosols and Dermosols Association.

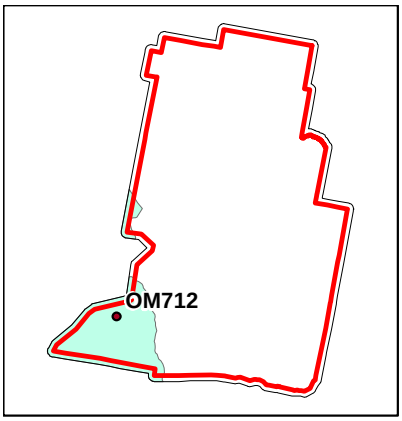
As noted in Section 3.4.5, where a soil test pit was observed as having the appearance of a Ferrosol, the free iron oxide concentration of the soil was analysed. The results of free iron oxide analysis from six soil test pits (OM703, OM716, OM737, OM762, OM793 and OM794) identified that free iron oxide concentrations were less than the 5% critical value that would allow any of the soil test pits to be classified as Ferrosols (Table 1).

Table 1. Concentration of Iron (as free iron oxide) from Selected Red Chromosols and Dermosols Association Soil Test Pits

Pit	Depth from (cm)	Depth to (cm)	Iron concentration (%)
OM703	10	60	1.6%
OM737	35	70	2.9%
OM762	20	50	1.8%
OM793	10	40	2.8%
OM794	15	70	1.2%

Laboratory testing was conducted on samples from all soil test pits described in the Red Chromosols and Dermosols Association and results are presented in Appendix III.

3.5.3. Manganic Chromosols and Dermosols on Byng Volcanics Soil Association (7 sites over 195 ha)



The Manganic Chromosols and Dermosols on Byng Volcanics Soil Association was mapped in the western third of the SVC Application Area and 100 m buffer. This Soil Association was mapped in the southwestern section of the SVC Application Area and 100 m buffer predominantly on Sturgeon Hill (Figure 3) and its footslopes. This Soil Association coincided with the area mapped as Ordovician (Byng and Blayney) Volcanics (Figure 4).

The soil profiles of this Soil Association were relatively consistent and comprised of a brown loamy topsoil with a pale or bleached A2 horizon over a light to light medium clay subsoil. There was evidence of prolonged waterlogging in the form of common (20 to 50%) to abundant (more than 50%) ferromanganiferous nodules in the subsoil of most soil test pits.

The ASC Order of this Soil Association was dominated by duplex profiles classified as Chromosols and Sodosols with a minority of structured gradational soils (Dermosols).

The soil properties of this Soil Association indicate that it can support grazing, however nutrient levels are suboptimal. The topsoil of this Soil Association appeared to be a good medium for root growth however root density declined rapidly for layers deeper than 30 cm. Consequently, should this Soil Association be subjected to tilling, great care would be required to protect the thin topsoil from loss by erosion.

Approximately 71% of the 195 ha mapped as Manganic Chromosols and Dermosols on Byng Volcanics Soil Association has slope flatter than 10%, so will be subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7.

Representative Soil Test Pit Profile Description: Manganic Chromosols and Dermosols on Byng Volcanics

Soil Test Pit: OM712	
	
Soil Test Pit OM712	**Landscape view, soil test pit OM712**
Australian Soil Classification Order	Chromosol (4), Dermosol (2), Sodosol (1)
Australian Soil Classification Sub-order	Brown (3), Grey (3), Yellow (1)
Representative Soil Test Pits	OM701, OM704, OM705, OM706, OM711, OM712, OM722
Manganic Profiles	86%
Bleached A2 Horizon	71%
Mottling	14%
BSAL Drainage	Poor (86%), Imperfect (14%)
Slope Classes	139 ha ≤ 10%, 56 ha steeper than 10%

3.5.3.1. Manganic Chromosols and Dermosols on Byng Volcanics Soil Association Chemistry

The soil chemistry summary in Figure 12 displays a consistent pattern of an acidic topsoil over a less acidic subsoil with low CEC and very low salinity (ECe) measured throughout the soil profile. Similar to the Red Chromosols and Dermosols Association, the measured exchangeable aluminium percentage accounted for a large proportion of cations measured in the 0 to 5 cm and 5 to 15 cm layers.

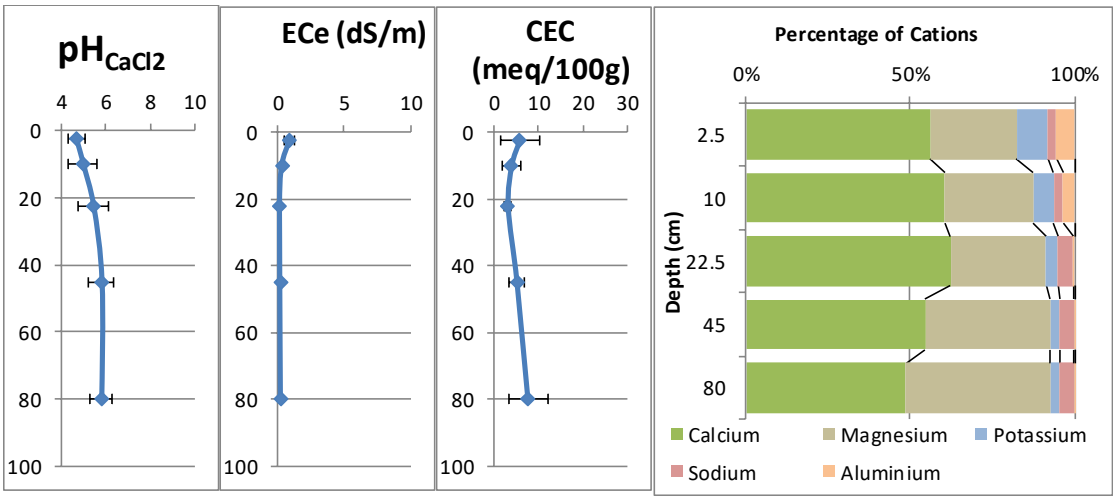
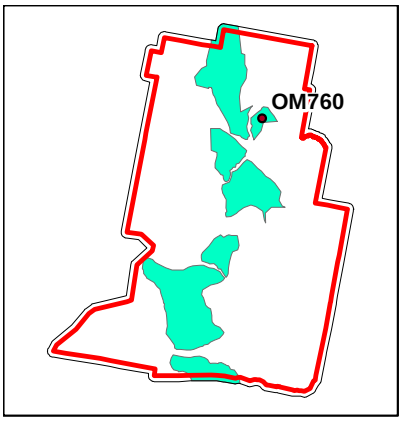


Figure 12. Soil chemistry summary for the Manganic Chromosols and Dermosols on Byng Volcanics Association.

Laboratory testing was conducted on samples from all soil test pits described in the Manganic Chromosols and Dermosols on Byng Volcanics Soil Association and results are presented in Appendix III.

3.5.4. Manganic Chromosols and Dermosols on Anson Formation Soil Association (17 sites over 373 ha)



The Manganic Chromosols and Dermosols on Anson Formation Soil Association was mapped in the middle and lower slopes of hills in sections of the centre of the SVC Application Area and 100 m buffer (Figure 9). This Soil Association was identified on the basis of a manganic subsoil that was primarily situated on the meta-sediments (siltstone and sandstone) of the Anson Formation (Figure 4).

The soil profiles of this Soil Association had a brown, loamy topsoil over a drab brown light to light medium clay subsoil. There was evidence of prolonged waterlogging in the form of manganese nodules in 15 of 17 profiles, and mottled subsoil in three of the profiles.

The ASC of this Soil Association was dominated by duplex (Chromosol and Sodosol) and structured gradational (Dermosol) profiles with a small number of deep loam profiles (Kandosols).

Representative Soil Test Pit Profile Description: Manganic Chromosols and Dermosols on Anson Formation

Soil Test Pit: OM782	
	
Soil Test Pit OM782	**Landscape view, soil test pit OM782**
Australian Soil Classification Order	Chromosol (7), Dermosol (7), Kandosol (2), Sodosol (1)
Australian Soil Classification Sub-order	Brown (16), Grey (1)
Representative Soil Test Pits	OM702, OM723, OM739, OM745, OM754, OM756, OM760, OM763, OM764, OM773, OM782, OM795, OM796, OM838, OM839, OM947, OM4005
Manganic Profiles	88%
Bleached A2 Horizon	44%
Mottling	19%
BSAL Drainage	Poor (56%), Imperfect (31%), Moderately well (19%)
Slope Classes	215 ha ≤ 10%, 158 ha steeper than 10%

The soil properties of this Soil Association indicated that the soil can support grazing however, as measured nutrient levels were suboptimal the addition of lime and fertilizer would be required to achieve high productivity. The topsoil of this profile was rated as a good medium for root growth, but conditions for root growth deteriorated with depth. Great care would be required if the soil is tilled to protect the thin topsoil from loss by erosion.

Approximately 58% of the 373 ha mapped as Manganic Chromosols and Dermosols on Anson Formation Soil Association has slope flatter than 10%, so will be subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7.

3.5.4.1. Manganic Chromosols and Dermosols on Anson Formation Soil Association Chemistry

The soil chemistry summary in Figure 13 showed a consistent pattern of acidic topsoil over less acidic subsoil, low CEC and very low salinity throughout the profile. Exchangeable aluminium accounted for an undesirably large proportion of cations in the 0 to 5 and 5 to 15 cm layers, and exchangeable magnesium was generally greater than desired.

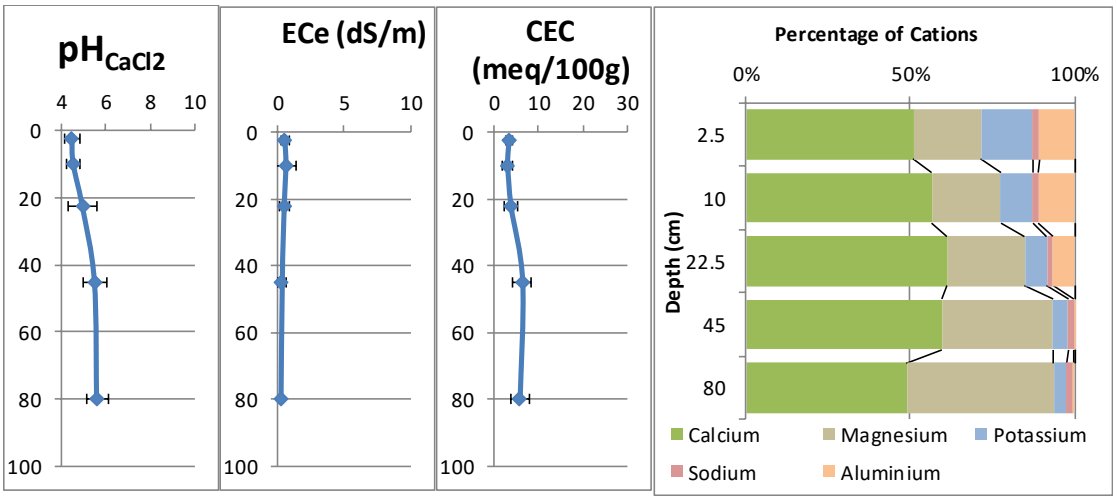
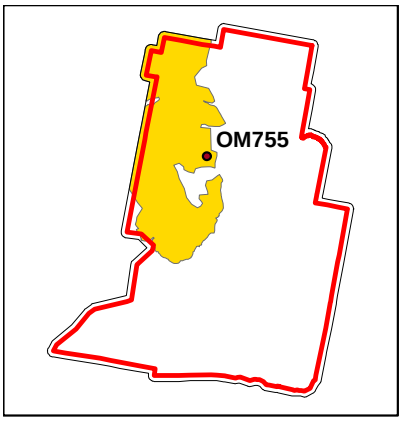


Figure 13. Soil chemistry summary for the Manganic Chromosols and Dermosols on Anson Formation Association.

Laboratory testing was conducted on samples from all soil test pits described in the Manganic Chromosols and Dermosols on Anson Formation Soil Association, with the exception of OM756, which was excluded from further BSAL assessment due to the presence of a physical barrier to root penetration.

3.5.5. Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association (14 sites over 414 ha)



The Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association was mapped in elevated sections from the central section to northern edge of the SVC Application Area and 100 m buffer (Figure 9). This Soil Association was situated on the meta-sediments (metamorphosed sandstone and siltstone) of the Anson Formation (Figure 4).

The soil profiles of this Soil Association consisted of 20 to 60 cm of brown, silty topsoil over a generally, drab brown light to medium clay subsoil. The soil test pits of this Soil Association were generally observed as being strongly leached, and many were either mottled or had bleached A2 horizons.

The soil properties of this Soil Association indicate that this soil can support grazing, however, the soil was acidic, had elevated exchangeable aluminium and is deficient in phosphorus and sulphur. Cultivation should be conducted with great care to preserve the organic material in the upper few centimetres of the topsoil.

Approximately 52% of the 414 ha of the Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association has slope flatter than 10%, so will be subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7.

Representative Soil Test Pit Profile Description: Mesotrophic and Eutrophic Brown Chromosols and Dermosols

Soil Test Pit: OM755	
	
Soil Test Pit OM755	**Landscape view, soil test pit OM755**
Australian Soil Classification Order	Dermosol (7), Chromosol (6), Kandosol (1)
Australian Soil Classification Sub-order	Brown (10), Grey (2), Red (1), Yellow (1)
Representative Soil Test Pits	OM738, OM741, OM742, OM755, OM774, OM775, OM776, OM783, OM784, OM785, OM948, OM949, OM950, OM951
Manganic Profiles	12%
Bleached A2 Horizon	43%
Mottling	21%
BSAL Drainage	Poor (71%), Imperfect (14%), Moderately well (14%)
Slope Classes	215 ha ≤ 10%, 199 ha steeper than 10%

3.5.5.1. Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association Chemistry

The soil chemistry summary in Figure 14 follows a consistent pattern whereby a strongly acidic topsoil is situated over a less acidic topsoil. Measured CEC was low throughout the soil profile, but extremely low CEC in the 5 to 15 cm and 15 to 30c m layers. Salinity, measured as ECe was also very low throughout the profile.

The measured cation ratios of this Soil Association identified elevated exchangeable aluminium percentages in surface layers that diminished with depth. The exchangeable magnesium percentage was also high throughout the profile.

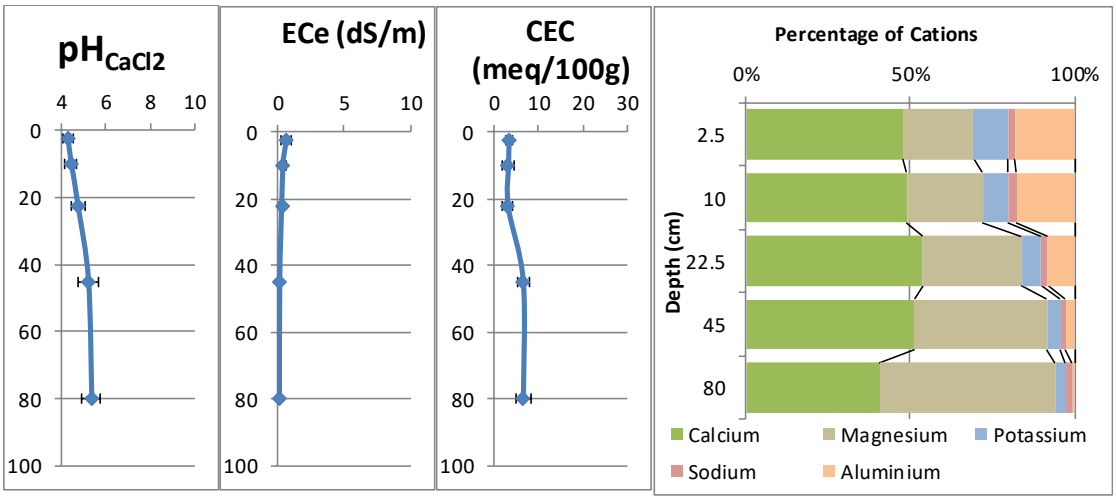
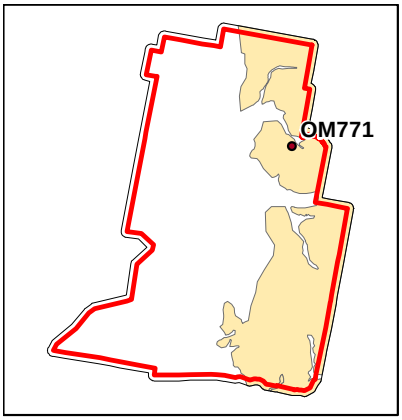


Figure 14. Soil chemistry summary for the Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association.

Laboratory testing was conducted on samples from all pits described in the Manganic Chromosols and Dermosols on Anson Formation Soil Association and results are presented in Appendix III.

3.5.6. Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association (30 sites over 715 ha)



The Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association was mapped on the elevated, eastern sections of the SVC Application Area and 100 m buffer (Figure 9). Similar to the Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association, the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association was situated on the meta-sediments (metamorphosed sandstone and siltstone) of the Anson Formation (Figure 4).

The soil profiles of this Soil Association consisted from 20 to as much as 60 cm of brown, silty topsoil over generally drab brown light to light-medium clay subsoil. The profiles generally had the appearance of being strongly leached, and the majority were either mottled or had bleached A2 horizons.

The soil properties of this Soil Association indicate that the soil can support grazing, however, the soil was acidic, had elevated exchangeable aluminium and deficient in phosphorus and sulphur. Cultivation should be conducted with great care to preserve the organic material in the upper few centimetres of the topsoil.

Approximately 57% of the 715 ha of the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association has slope flatter than 10%, so was

subjected to assessment against stopping rules 3 to 12 as outlined in Figure 7.

Representative Soil Test Pit Profile Description: Poorly Drained Brown Chromosols, Dermosols and Kurosols

Soil Test Pit: OM771	
	
Soil Test Pit OM771	**Landscape view, soil test pit OM771**
Australian Soil Classification Order	Chromosol (9), Dermosol (8), Kurosol (6), Sodosol (4), Kandosol (3)
Australian Soil Classification Sub-order	Brown (25), Yellow (4), Red (1)
Representative Soil Test Pits	OM746, OM747, OM748, OM749, OM750, OM752, OM753, OM758, OM759, OM761, OM765, OM766, OM767, OM768, OM769, OM770, OM771, OM772, OM779, OM780, OM787, OM788, OM789, OM790, OM791, OM792, OM840, OM841, OM842, OM843
Manganic Profiles	23%
Bleached A2 Horizon	43%
Mottling	63%
BSAL Drainage	Poor (73%), Imperfect (20%), Moderately well (7%)
Slope Classes	408 ha ≤ 10%, 308 ha steeper than 10%

3.5.6.1. Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association Chemistry

The soil chemistry summary in Figure 16 follows a consistent pattern of a strongly acidic topsoil over a less acidic topsoil. Similar to the Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Association, the measured CEC was low throughout the profile, with extremely low CEC in the 5 to 15 cm and 15 to 30 cm layers (Figure 15). Salinity, measured as ECe was also very low throughout the profile.

The measured cation ratios of this Soil Association identified elevated exchangeable aluminium percentages throughout the soil profile. In addition, the exchangeable magnesium percentage was high throughout the profile.

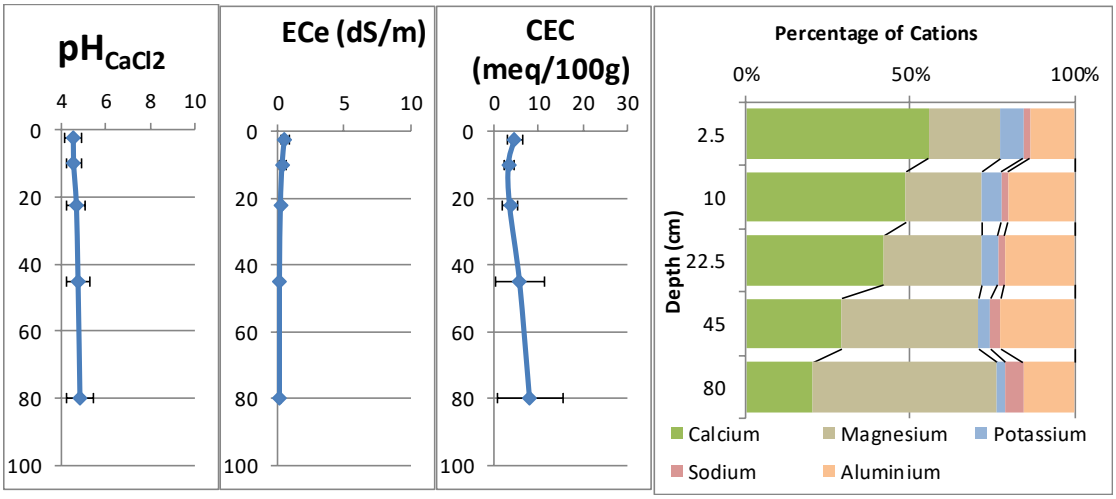


Figure 15. Soil chemistry summary for the Poorly Drained Brown Chromosols, Dermosols and Kurosols Association.

Laboratory testing was conducted on samples from all soil test pits described in the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association, with the exception of:

- OM759, which failed at stopping rule 8 of Figure 7 due to the presence of a physical barrier to root penetration; and
- OM770 and OM779 which failed at stopping rule 1 of Figure 7 because the field measured slope was greater than 10%.

The results of all laboratory analyses are presented in Appendix III.

3.5.7. Strongly Sodic Dermosol Soil Association (1 site over 13 ha)

The soil properties of soil test pit OM781 were sufficiently different from all other soil test pits investigated to allocate this soil test pit to a separate Soil Association, together with the scalded slopes of a hill to the east of OM781 (Figure 9).

Whilst this Soil Association is limited in terms of its spatial extent, it should be managed carefully to minimise the spread of the scalded (bare) soil beyond the current extent. Total grazing pressure should be minimised and strategic tree planting should be considered.

3.5.7.1. Strongly Sodic Dermosol Soil Association Chemistry

The soil chemistry summary in Figure 16 shows that the soil was strongly alkaline in contrast to the acidic soil of the other Soil Associations. The measured cations also returned a strongly sodic signature and a bulge in the salinity profile (ECe) was also measured below the soil surface (5 to 15 and 15 to 30 cm) which is consistent with shallow discharge of groundwater into the rootzone. The measured cation exchange capacity in OM781 (Figure 16) was also much higher than that of the surrounding Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Association (Figure 16).

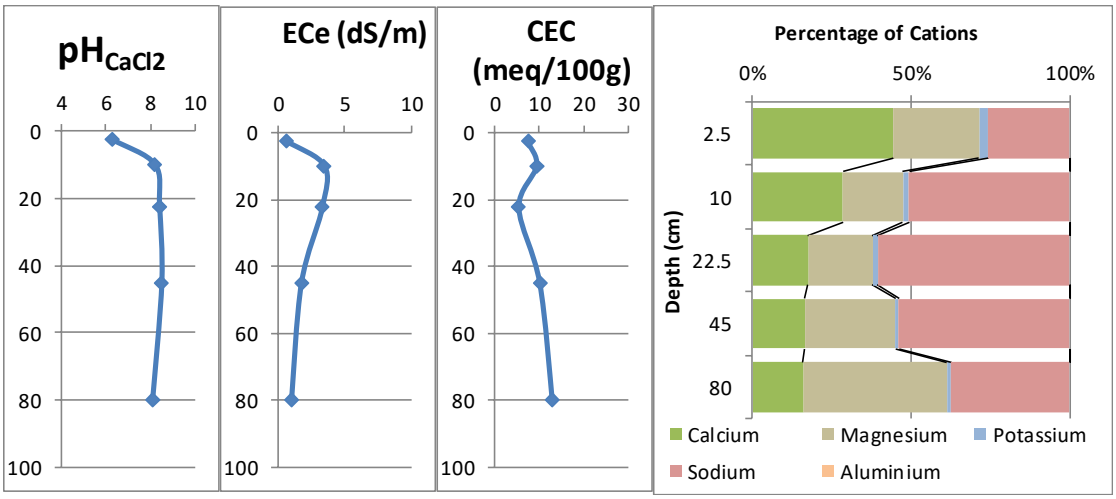


Figure 16. Soil chemistry summary for the Strongly Sodic Dermosol Soil Association.

Chemistry of each layer tested in pit OM781 in the Strongly Sodic Dermosol Soil Association is presented in Appendix III.

4. BSAL ASSESSMENT

The Soil Associations described in Section 3.5 were used as Soil Mapping Units for the BSAL assessment of the 1,209 ha of the SVC Application Area and 100 m buffer that has 10% slopes or flatter.

The Interim Protocol requires that sufficient information be collected at all detailed sites to assess sites against ALL stopping rules in Figure 7. In addition, the measured value that causes a site not to be BSAL is included in the BSAL assessment.

A Soil Mapping Unit would be assessed as being BSAL if more than 70% of sites in the Soil Mapping Unit are classified as BSAL. The stopping rules that cause a Soil Mapping Unit not to be BSAL were defined as those rules for which less than 70% of sites passed the stopping rule. . Each soil survey site that was verified as BSAL was also assessed with consideration for that site being located within an area greater than 20 ha that would likely be contiguous BSAL, based on uniformity of landform and soil.

The results of the BSAL assessment for each site assessed in each Soil Mapping Unit are presented below.

4.1. ALLUVIAL CHROMOSOLS, SODOSOLS AND DERMOSOLS SOIL MAPPING UNIT

None of the eight sites in the Alluvial Chromosols, Sodosols and Dermosols Soil Mapping Unit met all the BSAL criteria (Table 2).

Consequently, the Alluvial Chromosols, Sodosols and Dermosols Soil Mapping Unit does not meet the threshold for declarable BSAL, whereby at least 70% of the soil test pits must meet the BSAL criteria.

Table 2. BSAL Assessment for Alluvial Chromosols, Sodosols and Dermosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Black and Grey Poorly Drained Soil														
Chromosols														
OM4002	Bleached Eutrophic Black Chromosol	5%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>150	Poorly drained	>100	>150	> 100	No
OM743	Bleached Eutrophic Black Chromosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	>100	>120	> 100	No
OM744	Bleached Mesotrophic Grey Chromosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	>115	Poorly drained	>100	>115	> 100	No
Sodosols														
OM719	Eutrophic Subnatric Black Sodosol	1%	0%	0%	0%	<5%	Moderate	Moderately low	>130	Poorly drained	>100	>130	ESP 17% from 60 cm	No
OM724	Eutrophic Mottled-Subnatric Brown Sodosol	7%	0%	0%	0%	5 to 10%	Moderately high	Moderately low	>140	Poorly drained	>100	>140	> 100	No
OM4001	Melanic Subnatric Black Sodosol	1%	0%	0%	0%	<5%	Moderate	Moderately low	>140	Poorly drained	>100	30	ECe 4.6 from 30 cm	No

Table 2 (Cont'd). BSAL Assessment for Alluvial Chromosols, Sodosols and Dermosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Dermosols														
OM740	Bleached-Mottled Eutrophic Grey Dermosol	2%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	>100	>120	> 100	No
OM757	Mottled-Sodic Eutrophic Grey Dermosol	3%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	>100	>120	ESP 30% from 60 cm	No
Proportion passing this step		100%	100%	100%	100%			63%	100%	0%	100%	88%	63%	0%

4.2. RED CHROMOSOLS AND DERMOSOLS MAPPING UNIT

Two of the nine sites (22%; OM703 and OM737) in the Red Chromosols and Dermosols Mapping Unit met all the BSAL criteria (Table 3).

However, as seven (78%) of the soil test pits in the Red Chromosols and Dermosols Mapping Unit did not meet the BSAL criteria, the Red Chromosols and Dermosols Mapping Unit is not declarable BSAL.

Table 3. BSAL Assessment for Red Chromosols and Dermosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Chromosols														
OM703	Manganic Eutrophic Red Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>150	Well drained	>100	>150	> 100	Yes
OM786	Manganic Eutrophic Red Chromosol	1%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Moderately well drained	4.3 at 0 cm	>120	> 100	No
OM793	Manganic Eutrophic Red Chromosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>130	Moderately well drained	4.1 at 0 cm	>130	> 100	No
OM794	Manganic Mesotrophic Red Chromosol	1%	0%	0%	0%	<5%	Moderate	Moderately high	120	Moderately well drained	4 at 0 cm	>140	> 100	No
OM778	Bleached-Manganic Eutrophic Red Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	50	Poorly drained	4.3 at 0 cm	>130	> 100	No
Dermosols														
OM737	Haplic Mesotrophic Red Dermosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>110	Well drained	>100	>110	> 100	Yes
OM751	Haplic Mesotrophic Red Dermosol	9%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	60	Moderately well drained	4.2 at 0 cm	>115	> 100	No
OM777	Haplic Mesotrophic Red Dermosol	8%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	70	Moderately well drained	3.9 at 0 cm	>110	> 100	No
OM762	Manganic Eutrophic Red Dermosol	9%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	90	Moderately well drained	4 at 0 cm	>120	> 100	No
Proportion passing this step		100%	100%	100%	100%			100%	67%	89%	22%	100%	100%	22%

4.3. MANGANIC CHROMOSOLS AND DERMOSOLS ON BYNG VOLCANICS SOIL MAPPING UNIT

None of the seven soil test pits in the Manganic Chromosols and Dermosols on Byng Volcanics Mapping Unit were assessed as having met all BSAL criteria (Table 4).

Consequently, the Manganic Chromosols and Dermosols on Byng Volcanics Soil Mapping Unit is not declarable BSAL.

Table 4. BSAL Assessment for Manganic Chromosols and Dermosols on Byng Volcanics Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Chromosols														
OM704	Manganic Eutrophic Brown Chromosol	3%	0%	0%	0%	<5%	Moderate	Moderately high	>130	Poorly drained	>100	>130	> 100	No
OM706	Manganic Eutrophic Brown Chromosol	4%	0%	0%	0%	<5%	Moderate	Moderately high	110	Imperfectly drained	4.2 at 0 cm	>130	> 100	No
OM711	Bleached-Manganic Eutrophic Grey Chromosol	2%	0%	0%	0%	<5%	Moderate	Moderately high	>130	Poorly drained	>100	>130	> 100	No
OM712	Bleached Eutrophic Grey Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	>100	>120	> 100	No
Dermosols														
OM705	Bleached-Manganic Eutrophic Brown Dermosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	>100	Poorly drained	>100	>100	> 100	No
OM722	Bleached-Manganic Mesotrophic Yellow Dermosol	2%	0%	0%	0%	<5%	Moderate	Moderately high	80	Poorly drained	4.2 at 0 cm	>120	> 100	No
Sodosol														
OM701	Manganic Mottled-Subnatric Grey Sodosol	5%	0%	0%	0%	<5%	Moderate	Moderately low	110	Poorly drained	>100	>150	ESP 16% from 30 cm	No
Proportion passing this step		100%	100%	100%	100%			86%	100%	14%	71%	100%	86%	0%

4.4. MANGANIC CHROMOSOLS AND DERMOSOLS ON ANSON FORMATION SOIL MAPPING UNIT

One of the 17 sites (6%; OM782) in the Manganic Chromosols and Dermosols on Anson Formation Soil Mapping Unit met all the BSAL criteria (Table 5).

Since 16 (94%) of the soil test pits in the Manganic Chromosols and Dermosols on Anson Formation Soil Mapping Unit did not meet the BSAL criteria, the Manganic Chromosols and Dermosols on Anson Formation Soil Mapping Unit is not declarable BSAL.

Table 5. BSAL Assessment for Manganic Chromosols and Dermosols on Anson Formation Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Chromosols														
OM739	Bleached-Manganic Eutrophic Brown Chromosol	1%	0%	0%	0%	<5%	Moderate	Moderately high	80	Poorly drained	4.3 at 0 cm	>125	> 100	No
OM795	Bleached-Manganic Eutrophic Brown Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>130	Poorly drained	>100	>130	> 100	No
OM723	Manganic Eutrophic Brown Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>130	Poorly drained	4.3 at 0 cm	>130	> 100	No
OM796	Manganic Eutrophic Brown Chromosol	8%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	70	Poorly drained	4.1 at 0 cm	>110	> 100	No
OM839	Bleached Eutrophic Brown Chromosol	6%	0	0	0	5 to 10%	Moderately high	Moderately high	>150	Poorly drained	>100	>100	>100	No
OM782	Manganic Mesotrophic Brown Chromosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	90	Moderately well drained	>100	>100	> 100	Yes
OM763	Bleached-Mottled Mesotrophic Brown Chromosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	4.2 at 0 cm	>120	> 100	No

Table 5 (Cont'd). BSAL Assessment for Manganic Chromosols and Dermosols on Anson Formation Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Dermosols														
OM754	Manganic Eutrophic Brown Dermosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	70	Poorly drained	4.4 at 0 cm	>100	> 100	No
OM838	Manganic Eutrophic Brown Dermosol	4%	0	0	0	<5%	Moderate	Moderately high	>150	Imperfectly drained	4.4 at 15 cm	>100	>100	No
OM947	Manganic Eutrophic Brown Dermosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>110	Moderately well drained	4.4 at 0 cm	>100	>110	No
OM745	Manganic Mesotrophic Brown Dermosol	1%	0%	0%	0%	<5%	Moderate	Moderately high	55	Imperfectly drained	4.3 at 0 cm	>90	> 100	No
OM756	Manganic Mesotrophic Brown Dermosol	10%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	60	Imperfectly drained	No Lab	>110	No Lab	No
OM764	Manganic Mesotrophic Brown Dermosol	1%	0%	0%	0%	<5%	Moderate	Moderately high	85	Moderately well drained	4.4 at 0 cm	>130	> 100	No
OM760	Bleached-Manganic Mesotrophic Brown Dermosol	2%	0%	0%	0%	<5%	Moderate	Moderately high	60	Poorly drained	4.2 at 0 cm	>120	> 100	No
Sodosol														
OM702	Manganic Subnatric Grey Sodosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	50	Poorly drained	>100	>150	> 100	No
Kandosols														
OM773	Manganic Eutrophic Brown Kandosol	4%	0%	0%	0%	<5%	Moderate	Moderately Low	35	Imperfectly drained	4.2 at 0 cm	>120	> 100	No
OM4005	Manganic Mesotrophic Brown Kandosol	5%	0%	0%	0%	<5%	Moderate	Moderately low	>120	Imperfectly drained	4.4 at 0 cm	>120	> 100	No
Proportion passing this step		100%	100%	100%	100%			82%	59%	47%	19%	100%	100%	6%

4.5. MESOTROPHIC AND EUTROPHIC BROWN DERMOSOLS AND CHROMOSOLS SOIL MAPPING UNIT

One of the 14 sites (7%; OM776) in the Mesotrophic Brown Dermosols and Chromosols Mapping Unit met all BSAL criteria (Table 6).

Since 13 (93%) of soil test pits in the Mesotrophic Brown Dermosols and Chromosols Soil Mapping Unit were not BSAL, the Mesotrophic Brown Dermosols and Chromosols Soil Mapping Unit is not declarable BSAL.

Table 6. BSAL Assessment for Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Dermosols														
OM948	Bleached Eutrophic Brown Dermosol	6%	0%	0%	0		Moderately high	Moderately high	>110	Moderately well drained	4.4 at 0 cm	>100	>100	No
OM949	Haplic Eutrophic Brown Dermosol	9%	0%	0%	0		Moderately high	Moderately high	>100	Poorly drained	>100	>100	>100	No
OM755	Mottled Mesotrophic Brown Dermosol	9%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>120	Poorly drained	4.3 at 0 cm	>120	> 100	No
OM776	Haplic Mesotrophic Brown Dermosol	4%	0%	0%	0%	<5%	Moderate	Moderately high	>100	Imperfectly drained	>100	>100	> 100	Yes
OM775	Mottled-Sodic Mesotrophic Grey Dermosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>100	Poorly drained	4.1 at 0 cm	>100	> 100	No
OM951	Bleached Eutrophic Grey Dermosol	8%	0%	3%	0		Moderately high	Moderately high	>110	Poorly drained	4.1 at 0 cm	>100	>100	No
OM950	Bleached Eutrophic Red Dermosol	4%	0%	0%	0		Moderate	Moderately high	>110	Poorly drained	>100	>100	>100	No

Table 6 (Cont'd). BSAL Assessment for Mesotrophic and Eutrophic Brown Dermosols and Chromosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Chromosols														
OM783	Haplic Mesotrophic Brown Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>90	Moderately well drained	4.3 at 0 cm	>90	> 100	No
OM784	Haplic Mesotrophic Brown Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>100	Moderately well drained	4.4 at 0 cm	>100	> 100	No
OM741	Bleached Mesotrophic Brown Chromosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	10	Poorly drained	4.2 at 0 cm	>120	> 100	No
OM742	Bleached Mesotrophic Brown Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	105	Poorly drained	>100	>120	> 100	No
OM785	Manganic Mesotrophic Brown Chromosol	10%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	60	Imperfectly drained	4.1 at 0 cm	>70	> 100	No
OM738	Manganic Eutrophic Yellow Chromosol	9%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	80	Poorly drained	3.8 at 0 cm	>105	> 100	No
Kandosol														
OM774	Bleached-Mottled Mesotrophic Brown Kandosol	9%	0%	2%	0%	5 to 10%	Moderately High	Moderately low	55	Poorly drained	4 at 0 cm	>80	> 100	No
Proportion passing this step		100%	100%	100%	100%			100%	86%	36%	29%	100%	100%	7%

4.6. POORLY DRAINED BROWN CHROMOSOLS, DERMOSOLS AND KUROSOLS SOIL MAPPING UNIT

Since none of the 27 soil test pits assessed in the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit met all the BSAL criteria, the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit is not declarable BSAL (Table 7).

Table 7. BSAL Assessment for Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Chromosols														
OM761	Bleached-Mottled Eutrophic Brown Chromosol	2%	0%	0%	0%	<5%	Moderate	Moderately high	60	Poorly drained	>100	>120	> 100	No
OM766	Bleached-Mottled Eutrophic Brown Chromosol	0%	0%	0%	0%	<5%	Moderate	Moderately high	>110	Poorly drained	>100	>110	> 100	No
OM752	Haplic Eutrophic Brown Chromosol	8%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>120	Imperfectly drained	4.4 at 0 cm	>120	Ca:Mg 0.09 from 60 cm	No
OM767	Vertic Eutrophic Brown Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>140	Poorly drained	>100	>140	> 100	No
OM792	Bleached Eutrophic Brown Chromosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>140	Poorly drained	4.2 at 0 cm	>140	> 100	No
OM753	Mottled Mesotrophic Brown Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>120	Poorly drained	>100	>120	> 100	No
OM780	Mottled Mesotrophic Brown Chromosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	100	Poorly drained	4.1 at 0 cm	>130	> 100	No
OM746	Manganic Mesotrophic Brown Chromosol	8%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	70	Imperfectly drained	4.1 at 0 cm	>100	> 100	No
OM790	Manganic Magnesic Red Chromosol	8%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	>130	Moderately well drained	>100	>130	Ca:Mg 0.08 from 60 cm	No

Table 7 (Cont'd). BSAL Assessment for Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Dermosols														
OM748	Mottled Mesotrophic Brown Dermosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>120	Poorly drained	>100	>120	> 100	No
OM758	Mottled Mesotrophic Brown Dermosol	5%	0%	0%	0%	<5%	Moderate	Moderately high	>120	Poorly drained	>100	>120	> 100	No
OM787	Manganic Mesotrophic Brown Dermosol	4%	0%	0%	0%	<5%	Moderate	Moderately high	>140	Imperfectly drained	4.3 at 0 cm	>140	> 100	No
OM791	Manganic-Acidic Mesotrophic Brown Dermosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>130	Imperfectly drained	4.1 at 0 cm	>130	Ca:Mg 0.05 from 60 cm	No
OM841	Bleached-Acidic Mesotrophic Brown Dermosol	7%	0	0	0	5 to 10%	moderately high	Moderately high	>150	Poorly drained	4.4 at 30 cm	>100	>100	No
OM788	Acidic-Mottled Magnesic Brown Dermosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>130	Poorly drained	4.2 at 0 cm	>130	Ca:Mg 0.06 from 60 cm	No
OM789	Acidic-Mottled Eutrophic Brown Dermosol	7%	0%	0%	0%	5 to 10%	Moderately High	Moderately high	>120	Poorly drained	4.2 at 0 cm	>120	Ca:Mg 0.09 from 60 cm	No
OM840	Bleached-Acidic Eutrophic Yellow Dermosol	9%	0.05	0	0	5 to 10%	moderately high	Moderately high	50	Poorly drained	4.4 at 30 cm	>100	>100	No

Table 7 (Cont'd). BSAL Assessment for Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Kurosols														
OM843	Haplic Mesotrophic Brown Kurosol	8%	0	0.1	0	5 to 10%	moderately high	Moderate	50	Moderately well drained	4.3 at 5 cm	>60	>60	No
OM749	Bleached-Manganic Mesotrophic Brown Kurosol	9%	0%	2%	0%	5 to 10%	Moderately High	Moderate	70	Poorly drained	4.2 at 0 cm	>120	Ca:Mg 0.03 from 60 cm	No
OM750	Bleached-Mottled Magnesic Brown Kurosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	>120	Poorly drained	4.2 at 30 cm	>120	Ca:Mg 0.06 from 60 cm	No
OM768	Mottled Natric Brown Kurosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	>100	Poorly drained	4.1 at 0 cm	>100	ESP 16% from 60 cm	No
OM842	Bleached Magnesic Yellow Kurosol	7%	0	0.1	0	5 to 10%	moderately high	Moderately low	60	Poorly drained	>100	>100	Ca:Mg 0.03 at 30 cm	No
Sodosol														
OM747	Manganic Mottled-Subnatric Brown Sodosol	6%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	>130	Poorly drained	4.4 at 0 cm	>130	> 100	No
OM769	Mesotrophic Mottled-Subnatric Brown Sodosol	5%	0%	0%	0%	<5%	Moderate	Moderately low	>140	Poorly drained	4.2 at 0 cm	>140	> 100	No
OM779	Mesotrophic Mottled-Subnatric Yellow Sodosol	10%	0%	0%	0%	5 to 10%	Moderately High	Moderately low	>120	Poorly drained	No Lab	>120	No Lab	No

Table 7 (Cont'd). BSAL Assessment for Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Kandosol														
OM771	Mottled Mesotrophic Brown Kandosol	4%	0%	0%	0%	<5%	Moderate	Moderately low	>115	Poorly drained	4.3 at 30 cm	>115	> 100	No
OM772	Haplic Eutrophic Brown Kandosol	4%	0%	0%	0%	<5%	Moderate	Moderately Low	>120	Imperfectly drained	4.1 at 0 cm	>120	> 100	No
Proportion passing this step		93%	100%	100%	100%			59%	86%	23%	30%	100%	59%	0%

Two of the three check sites in the Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit would also have failed to be BSAL on other criteria (Table 8).

Table 8. BSAL check sites in Poorly Drained Brown Chromosols, Dermosols and Kurosols Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
Kandosol														
OM759	Haplic Mesotrophic Brown Kandosol	12%	0%	0%	0%				75	Imperfectly drained	No Lab	>100	No Lab	No
OM765	Mesotrophic Subnatric Yellow Sodosol	11%	0%	2%	0%			Moderately low	50	Poorly drained	4.1 at 0 cm	>110	ESP 15% from 60 cm	No
OM770	Bleached-Mottled Mesotrophic Brown Kurosol	13%	0%	0%	0%				>130	Poorly drained	No Lab	>130	No Lab	No

4.7. STRONGLY SODIC DERMOSOL SOIL MAPPING UNIT

The one soil test pit of this Soil Mapping Unit (OM781) was assessed as being non-BSAL and therefore this Soil Mapping Unit is not BSAL (Table 9).

Table 9. BSAL Assessment for Strongly Sodic Dermosol Soil Mapping Unit.

Soil Test Pit ID	ASC Subgroup	Step 1 Slope	Step 2 Rock Outcrop	Step 3 Rock Fragment	Step 4 Gilgai	Step 5 5% Slope Class	Step 7 ASC Fertility Required	Step 7 ASC Fertility	Step 8 Depth to physical barrier	Step 9 BSAL Drainage	Step 10 Depth to pH Fail	Step 11 Depth to ECe Fail	Step 12 Depth to Chemistry Fail	BSAL Status
OM781	Bleached-Manganic Eutrophic Brown Dermosol	5%	0%	0%	0%	<5%	moderate	Moderately high	>150	Poorly drained	8.2 at 5 cm	>150	ESP 25% from 0 cm	No

5. BSAL SITE VERIFICATION

The assessment has identified that no Soil Mapping Unit identified within the SVC Application Area and 100 m buffer has soil and landscape features which satisfy all criteria required for classification as BSAL (refer to Figure 17). The findings of the BSAL assessment can be summarised as follows:

- No Soil Mapping Unit met the threshold for declarable BSAL whereby at least 70% of the samples must meet the BSAL criteria.
- 95% of the 83 sites assessed with field measured slope flatter than 10% failed the BSAL criteria, while four sites (OM703, OM737, OM776 and OM782, as shown on Figure 17) satisfied the BSAL criteria. These four sites are isolated from each other and in different soil mapping units so no site was located in an area likely to be greater than 20 ha contiguous BSAL.

Consequently, a Site Verification Certificate is sought to acknowledge that no BSAL is present within the SVC Application Area.

BSAL ASSESSMENT SUMMARY		
Soil Mapping Unit	**Area Flatter than 10% (ha)**	**BSAL Failure Steps**
Alluvial Chromosols, Sodosols and Dermosols	160	7-Fertility, 9-Drainage
Red Chromosols and Dermosols	67	8-Physical, 10-pH
Manganic Chromosols and Dermosols on Byng Volcanics	139	9-Drainage
Manganic Chromosols and Dermosols on Anson Formation	215	8-Physical, 9-Drainage, 10-pH
Mesotrophic and Eutrophic Brown Dermosols and Chromosols	215	9-Drainage, 10-pH
Poorly Drained Brown Chromosols, Dermosols and Kurosols	408	7-Fertility, 9,Drainage, 10-pH, 12-Chemical
Strongly Sodic Dermosol	6	9-Drainage, 10-pH, 12-Chemical, Area

Reference

BSALRate

Site BSAL Rate

- Fail
- OK
- SVC Application Area (1,825 ha)
- 100 m buffer (210 ha)

Slope Assessment

- Fail. Photogrammetry Slope > 10%

Soil Mapping Unit

- Alluvial Chromosols, Sodosols and Dermosols
- Red Chromosols and Dermosols
- Manganic Chromosols and Dermosols on Byng Volcanics
- Manganic Chromosols and Dermosols on Anson Formation
- Mesotrophic and Eutrophic Brown Dermosols and Chromosols
- Poorly Drained Brown Chromosols, Dermosols and Kurosols
- Strongly Sodic Dermosol

SCALE 1:25,000 (A3)

0 0.25 0.5 1 1.5 Kilometres

Projection: UTM
Project Area: EMM Consulting
Slope: Regis Ltd and RW Corkery
Watercourses: NSW Spatial Services

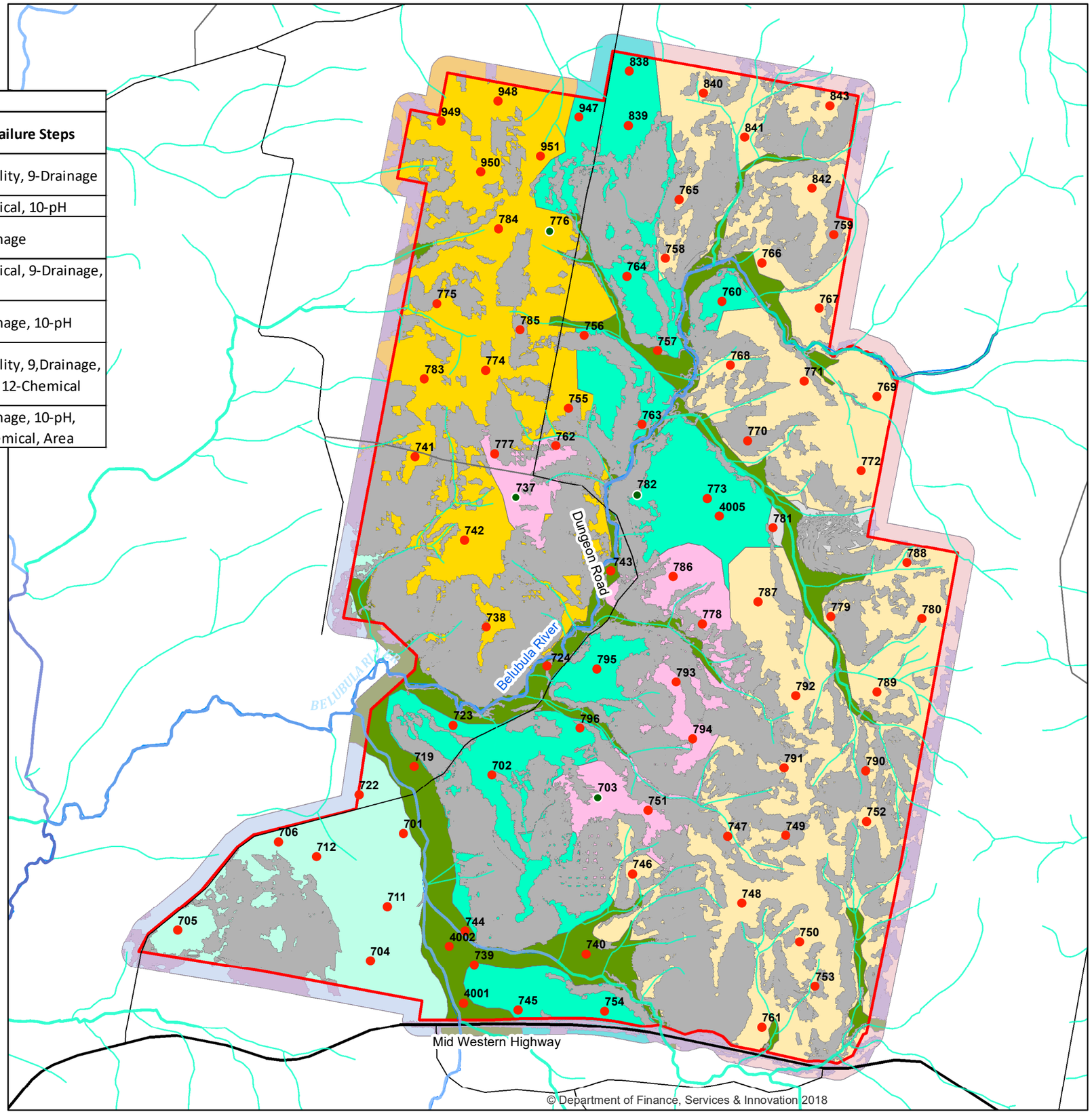


Figure 17
BIOPHYSICAL STRATEGIC AGRICULTURAL LAND

6. REFERENCES

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APPENDIX I:

Incitec Pivot Ltd and SESL QA Certificates

NATA Accredited Laboratory

National Association of Testing Authorities, Australia
(ABN 59 004 379 748)

has accredited

Incitec Pivot Ltd
Incitec Pivot Laboratory
Nutrient Advantage Laboratory Services

following demonstration of its technical competence
to operate in accordance with

ISO/IEC 17025

This facility is accredited in the field of

Chemical Testing

for the tests shown on the *Scope of Accreditation* issued by NATA

A J Russell
Chief Executive

Date of accreditation: 7 November 1996
Accreditation number: 11958

NATA
WORLD RECOGNISED
ACCREDITATION

NATA is Australia's government-endorsed laboratory accreditor, and a leader in accreditation internationally. NATA is a signatory to the international mutual recognition arrangements of the International Laboratory Accreditation Cooperation (ILAC) and the Asia Pacific Laboratory Accreditation Cooperation (APLAC).

Scope of Accreditation

ACCREDITATION NO: 11958

Incitec Pivot Ltd
Nutrient Advantage Laboratory Services

Incitec Pivot Laboratory
8 South Road
WERRIBEE VIC 3030

CONTACT: Mr P Williams
PHONE: (03) 9731 3100 FAX: (03) 9974 0699 MOBILE:
EMAIL: lab.feedback@incitecpivot.com.au
WEB SITE: www.incitecpivot.com.au/nutrientadvantage2.asp

FACILITIES: Public testing service

This facility complies with the requirements of ISO/IEC 17025:2005

7.61 Agricultural products and materials

.22 Soils

listed as determination(s) by technique(s) using method(s) -
Aluminium - exchangeable (potassium chloride extractable) by AAS (flame) using in-house Incitec Pivot 04-027
Boron (hot calcium chloride extractable) by ICP-AES using in-house Incitec Pivot 04-025
Chloride by SFA using in-house Incitec Pivot 04-052
Colour and texture by classical using in-house Incitec Pivot 04-042
DTPA trace elements - copper, iron, manganese, zinc by ICP-AES using in-house Incitec Pivot 04-024
Electrical conductivity by classical using in-house Incitec Pivot 04-031
Exchangeable cations - calcium, magnesium, potassium, sodium (ammonium acetate) by ICP-AES using in-house Incitec Pivot 04-026
Exchangeable cations - aluminium, calcium, magnesium, potassium, sodium (ammonium chloride/barium chloride) by ICP/AES using in-house Incitec Pivot 04-022
Mehlich III - aluminium, boron, calcium, copper, iron, magnesium, manganese, potassium, phosphorus, sodium, sulfur, zinc by ICP-AES using in-house Incitec Pivot 04-035
Moisture by classical using in-house Incitec Pivot 04-029
Nitrogen - ammonium (potassium chloride/sulphuric acid extractable) by FIA using in-house Incitec Pivot 04-043
Nitrogen - nitrate by SFA using in-house Incitec Pivot 04-052
Nitrogen - total Kjeldahl by FIA using in-house Incitec Pivot 04-040
Organic carbon - oxidisable by UV-vis spectrophotometric using in-house Incitec Pivot 04-018
pH (calcium chloride) by classical using in-house Incitec Pivot 04-031
pH (water) by classical using in-house Incitec Pivot 04-031
pH buffer by classical using in-house Incitec Pivot 04-047
Phosphorus - available (Bray) by FIA using in-house Incitec Pivot 04-002
Phosphorus - available (BSES) by FIA using in-house Incitec Pivot 04-004
Phosphorus - available (Colwell) by FIA using in-house Incitec Pivot 04-013
Phosphorus - available (Lactate) by UV-vis spectrophotometric using in-house Incitec Pivot 04-050

Scope of Accreditation

Phosphorus - available (Olsen) by FIA using in-house Incitec Pivot 04-030
Phosphorus - total (Kjeldahl) by FIA using in-house Incitec Pivot 04-040
Phosphorus buffer index (PBI) by ICP-AES using in-house Incitec Pivot 04-020
Potassium - exchangeable (Colwell) by AAS (flame) using in-house Incitec Pivot 04-044
Potassium - exchangeable (nitric acid) by ICP-AES using in-house Incitec Pivot 04-015
Silicon - available (BSES) by FIA using in-house Incitec Pivot 04-004
Silicon - available (calcium chloride) by FIA using in-house Incitec Pivot 04-046
Slaking and dispersion by classical using in-house Incitec Pivot 04-041
Sulfur - available (calcium dihydrogen orthophosphate) by ICP-AES using in-house Incitec Pivot 04-016
Sulfur - available (potassium chloride) by ICP-AES using in-house Incitec Pivot 04-021
Zinc (hydrochloric acid) by ICP-AES using in-house Incitec Pivot 04-014

.23 Plant tissue

listed as determination(s) by technique(s) using method(s) -
Boron by ICP-AES using in-house Incitec Pivot 04-023
Calcium by ICP-AES using in-house Incitec Pivot 04-023
Chloride (hot and cold extraction) by SFA using in-house Incitec Pivot 04-045
Copper by ICP-AES using in-house Incitec Pivot 04-023
Iron by ICP-AES using in-house Incitec Pivot 04-023
Magnesium by ICP-AES using in-house Incitec Pivot 04-023
Manganese by ICP-AES using in-house Incitec Pivot 04-023
Nitrogen - nitrate (hot and cold extraction) by SFA using in-house Incitec Pivot 04-045
Nitrogen - total Kjeldahl by FIA using in-house Incitec Pivot 04-011
Phosphorus by ICP-AES using in-house Incitec Pivot 04-023
Potassium by ICP-AES using in-house Incitec Pivot 04-023
Sodium by ICP-AES using in-house Incitec Pivot 04-023
Sulfur by ICP-AES using in-house Incitec Pivot 04-023
Zinc by ICP-AES using in-house Incitec Pivot 04-023

Accreditation No: 11958
Corporate Site No: 11951
(Scope Last Changed 03/09/09)

Australasian Soil and Plant Analysis Council Inc.

This is to certify that

Nutrient Advantage Laboratory Services #CMA-054

meets ASPAC's proficiency criteria for the following methods conducted in the Soil Proficiency Testing Program, 2016

• **Ammonium Nitrogen (mg/kg)**	**7C2**
• **CaCl2 Extractable B (mg/kg)**	**12C2**
• **Exch Aluminium (cmol+/kg)**	**15G1**
• **Exch Calcium (cmol+/kg)**	**15D3**
• **Exch Potassium (cmol+/kg)**	**15D3**
• **Exch Magnesium (cmol+/kg)**	**15D3**
• **Exch Sodium (cmol+/kg)**	**15D3**
• **Ext Copper (mg/kg)**	**12A1**
• **Ext Iron (mg/kg)**	**12A1**
• **Ext Manganese (mg/kg)**	**12A1**
• **Acid P (mg/kg)**	**9G2**
• **Bray P (mg/kg)**	**9E2**
• **Colwell P (mg/kg)**	**9B2**
• **Olsen P (mg/kg)**	**9C2**
• **Ext Sulphur (mg/kg)**	**10B1**
• **Ext Sulphur (mg/kg)**	**10D1**
• **Ext Zinc (mg/kg)**	**12A1**
• **M3-Aluminium (mg/kg)**	**18F1**
• **M3-Boron (mg/kg)**	**18F1**
• **M3-Calcium (mg/kg)**	**18F1**
• **M3-Copper (mg/kg)**	**18F1**
• **M3-Iron (mg/kg)**	**18F1**
• **M3-Potassium (mg/kg)**	**18F1**
• **M3-Magnesium (mg/kg)**	**18F1**
• **M3-Manganese (mg/kg)**	**18F1**
• **M3-Sodium (mg/kg)**	**18F1**
• **M3-Phosphorus (mg/kg)**	**18F1**
• **M3-Sulphur (mg/kg)**	**18F1**
• **M3-Zinc (mg/kg)**	**18F1**
• **Nitrate Nitrogen (mg/kg)**	**7C2**
• **Organic Carbon W&B (%)**	**6A1**
• **PBI Colwell (L/kg)**	**9I2a**
• **pH CaCl2 (pH units)**	**4B2**
• **pH Water (pH units)**	**4A1**
• **Total Nitrogen (%)**	**7A2**
• **Total Nitrogen (%)**	**7A5**
• **Total Phosphorus (%)**	**Not Specified**
• **Water Ext Cl (mg/kg)**	**5A2**

Method codes are from Rayment and Lyons (2011)

D J Lyons

……

D. Lyons
Chairperson, ASPAC

R. Hill

……

R. Hill
Convenor, Lab Proficiency Committee

Scope of Accreditation

ACCREDITATION NO: 15633

SESL Australia Pty Ltd

SESL Australia Pty Ltd
16 Chilvers Road
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PHONE: 1300 304 080 FAX: (02) 9484 2427 MOBILE:
EMAIL: info@sesl.com.au
WEB SITE: www.sesl.com.au

FACILITIES: Public testing service

7.11 Cements, concrete and related products

.31 Concrete

Analysis of recycled crushed concrete
listed as determination(s) by technique(s) using method(s) -
Foreign materials by classical using RMS T105 and T276 and in-house PM0002

7.16 Fuels

.03 Coals and coke

listed as determination(s) by technique(s) using method(s)-
Carbon - total inorganic; total organic; total by classical using in-house CM0009
Sulfur - total by classical using in-house CM0009

7.61 Agricultural products and materials

.22 Soils

listed as determination(s) by technique(s) using method(s)-
Acid neutralising capacity (ANC_{BT}) by classical using in-house PM0011
Acidity - titratable peroxide (TPA); excess acid neutralisation capacity (ANC_E); peroxide pH (pH_{OX})by classical using in-house PM0011
Acidity - titratable actual (TAA); pH_{KCl} by classical using in-house PM0011
Aluminium; calcium; potassium; magnesium; sodium by ICP-AES using in-house CM0007
Antimony; arsenic; barium; beryllium; boron; cadmium; chromium; cobalt; copper; iron; lead; lithium; manganese; mercury; molybdenum; nickel; selenium; silicon; silver; strontium; thallium; tin; titanium; vanadium; zinc by ICP-AES using in-house CM0008
Carbon - total; total inorganic; total organic by classical using in-house CM0009
Conductivity by classical using Rayment and Lyons 3A1
Net acid-soluble calcium (Ca_{NAS}); magnesium (Mg_{NAS}); sulfur (S_{NAS}) by calculation using in-house PM0011
Elements as listed under 7.84.01
Organics as listed under 7.84
Nitrogen - total by Dumas combustion using in-house CM0010
Peroxide oxidisable sulfur (S_{POS}); reacted calcium (Ca_A); magnesium (Mg_A) by calculation using in-house PM0011
pH by classical using Rayment and Lyons 4A1, 4B2
Phosphorus (available) by ICP-AES using in-house CM0005
Sulfur by ICP-AES using in-house CM0004

Scope of Accreditation

Sulfur - total by classical using in-house CM0009
Titratable sulfidic acidity (TSA) by calculation using in-house PM0011

.23 Plant tissue
listed as determination(s) by technique(s) using method(s)-
Nitrogen - total by Dumas combustion using in-house CM0010

.24 Compost
listed as determination(s) by technique(s) using method(s)-
Aluminium; calcium; potassium; magnesium; sodium by ICP-AES using in-house CM0007
Carbon - total inorganic; total organic; total by classical using in-house CM0009
Conductivity by classical using AS4454
Nitrogen - total by Dumas combustion using in-house CM0010
pH by classical using AS4454
Phosphorus by ICP-AES using in-house CM0005
Sulfur - total by classical using in-house CM0009

.99 Other agricultural products
Media, potting mixes
listed as determination(s) by technique(s) using method(s)-
Aluminium; calcium; potassium; magnesium; sodium by ICP-AES using in-house CM0007
Conductivity by classical using AS3743
pH by classical using AS3743
Phosphorus by ICP-AES using in-house CM0005
Sulfur by ICP-AES using in-house CM0004

7.66 Waters

.01 Waters for potable and domestic purposes
listed as determination(s) by technique(s) using method(s)-
Conductivity by classical using Rayment and Higginson B1a
Elements as listed under 7.84.01
pH by classical using Rayment and Higginson C1a

.02 Waters for irrigation and stock
As listed under 7.66.01

.03 Waters for industrial and steam-raising purposes
As listed under 7.66.01

7.81 Constituents of the environment

.11 Waters other than saline
As listed under 7.66

.31 Soils
listed as determination(s) by technique(s) using method(s) -
As listed under 7.61.22 and 7.84
Foreign materials by classical using RMS T105 and T276 and in-house PM0002

.32 Sediments
listed as determination(s) by technique(s) using method(s) -
Carbon - total inorganic; total organic; total by classical using in-house CM0009
Elements as listed under 7.84.01
Nitrogen - total by Dumas combustion using in-house CM0010
Sulfur - total by classical using in-house CM0009

.33 Solid wastes
As listed under 7.84.01 (composts, organic soil conditioners and organic/inorganic fertilisers)

.34 Biosolids
As listed under 7.84.01

7.82 Workplace environment and hazards

.31 Asbestos fibre identification
Qualitative identification in bulk samples
listed as determination(s) by technique(s) using method(s) -

Scope of Accreditation

Amosite; chrysotile; crocidolite; organic fibres; synthetic mineral fibres by polarised light microscopy (including dispersion staining) using AS4964 and supplementary work instruction in-house CM0011

7.84 Residues and contaminants in constituents of the environment

.01 Elements

Analysis of biosolids, soils and waters for potable and domestic purposes, irrigation and stock and industrial and steam-raising purposes
listed as determination(s) by technique(s) using method(s) -
Aluminium; calcium; magnesium; potassium; sodium by ICP-AES using in-house CM0007
Copper; iron; manganese; zinc by ICP-AES using in-house CM0006
Phosphorus by ICP-AES using in-house CM0005
Sulfur by ICP-AES using in-house CM0004

Analysis of waters, sediments; soils and solid wastes (waste soils, treated drill muds and treated biosolids)
listed as determination(s) by technique(s) using method(s) -
Antimony; arsenic; barium; beryllium; boron; cadmium; chromium; cobalt; copper; iron; lead; lithium; manganese; mercury; molybdenum; nickel; selenium; silicon; silver; strontium; thallium; tin; titanium; vanadium; zinc by ICP-AES using in-house CM0008

Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Hydrochloric acid extractable calcium (Ca_{HCl}); magnesium (Mg_{HCl}); sulfur (S_{HCl}) by ICP-AES using in-house PM0011
Peroxide calcium (Ca_P); magnesium (Mg_P); sulfur (S_P) by ICP-AES using in-house PM0011
Potassium chloride extractable calcium (Ca_{KCl}); magnesium (Mg_{KCl}); sulfur (S_{KCl}) by ICP-AES using in-house PM0011

.02 Pesticides

Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Organochlorine pesticides (OC): Aldrin; α-BHC; β-BHC; γ-BHC (lindane); δ-BHC; α-chlordane; γ-chlordane; 4,4'-DDD; 4,4'-DDE; 4,4'-DDT; dieldrin; endosulfan I; endosulfan II; endosulfan sulfate; endrin; endrin aldehyde; endrin ketone; heptachlor; heptachlor epoxide; hexachlorobenzene; methoxychlor; mirex by GC-ECD using in-house ORGM0012

Organophosphorous pesticides (OP): Azinphos-methyl (guthion); chlorpyrifos (chlorpyrifos ethyl); dichlorvos; disulfoton (di-syston); ethoprophos (ethoprop); fenchlorphos (ronnel); parathion-methyl; prothiophos (tokuthion); ethion; malathion by GC-MS using in-house ORGM0011

.03 Polyhalogenated biphenyls

Analysis of soils
listed as determination(s) by technique(s) using method(s) -
PCB Aroclors: 1016; 1221; 1232; 1242; 1248; 1254; 1260; 1262; 1268 by GC-ECD using in-house ORGM0012

.04 Halogenated hydrocarbons

Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Bromobenzene; bromochloromethane; bromodichloromethane; bromoform; carbon tetrachloride; chlorobenzene; chloroform; 2-chlorotoluene; 4-chlorotoluene; dibromochloromethane; 1,2-dibromo-3-chloropropane (DBCP); 1,2-dibromoethane (EDB); dibromomethane; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; 1,1-dichloroethane; 1,2-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; trans-1,2-dichloroethene; 1,2-dichloropropane; 1,3-dichloropropane; 1,1-dichloropropene; hexachloro-1,3-butadiene; methylene chloride (dichloromethane, DCM); 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethene; 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethene; 1,2,3-trichloropropane; vinyl chloride by purge and trap GC-MS using ORGM0013

.12 Petroleum hydrocarbons

Scope of Accreditation

Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Volatile total petroleum hydrocarbons (TPH) C_6-C_9 by purge and trap GC-MS using in-house ORGM0013
Total petroleum hydrocarbons (TPH) C_{10}-C_{14}; C_{15}-C_{28}; C_{29}-C_{36} by GC-FID using in-house ORGM0014
Total petroleum hydrocarbons after silica gel clean-up (TPH-silica) C_{10}-C_{14}; C_{15}-C_{28}; C_{29}-C_{36} by GC-FID using in-house ORGM0003 and ORGM0014
Volatile total recoverable hydrocarbons (TRH) C_6-C_{10} as listed in NEPM schedule B3 appendix 2 method A1 by purge and trap GC-MS using in house ORGM0013
Total recoverable hydrocarbons (TRH) $>C_{10}$-C_{16}; $>C_{16}$-C_{34}; $>C_{34}$-C_{40} as listed in NEPM schedule B3 appendix 2 method A2 by GC-FID using in house ORGM0014
Total recoverable hydrocarbons after silica gel clean-up (TRH-silica) $>C_{10}$-C_{16}; $>C_{16}$-C_{34}; $>C_{34}$-C_{40} by GC-FID using in-house ORGM0003 and ORGM0014

.21 Monocyclic aromatic hydrocarbons
Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Benzene; toluene; ethylbenzene; m-& p-xylene; o-xylene; bromobenzene; n-propylbenzene; sec-butylbenzene; tert-butylbenzene; chlorobenzene; 2-chlorotoluene; 4-chlorotoluene; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; isopropylbenzene (cumene); 4-isopropyl toluene (p-cymene); n-propylbenzene; styrene (ethylene benzene); 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene by purge and trap GC-MS using ORGM0013

.22 Polycyclic aromatic hydrocarbons
Analysis of soils
listed as determination(s) by technique(s) using method(s) -
Acenaphthene; acenaphythylene; anthracene; benz(a)anthracene; benzo(b, k)fluoranthene; benzo (g,h,i)perylene; benzo(a)pyrene; chrysene; dibenz(a,h)anthracene; fluoranthene; fluorene; indeno (1,2,3-cd)pyrene; 1-methylnaphthalene; 2-methylnaphthalene; naphthalene; phenanthrene; pyrene by GC-MS using in-house ORGM0011

.31 Asbestos
Qualitative identification of asbestos in soil
listed as determination(s) by technique(s) using method(s) -
Amosite; chrysotile; crocidolite; organic fibres; synthetic mineral fibres by polarised light microscopy (including dispersion staining) using AS4964 and supplementary work instruction in-house CM0011

7.94 Particle sizing
listed as determination(s) by technique(s) using method(s) -
Particle size by classical using Bradley method (Soil Testing Service - methods and interpretation; NSW Dpt. of Agriculture) and in-house PM0001

Accreditation No: 15633
(Scope Last Changed 06/02/17)

Australasian Soil and Plant Analysis Council Inc.

This is to certify that

Sydney Environmental and Soil Laboratory #CMA-025

meets ASPAC's proficiency criteria for the following methods conducted in the Soil Proficiency Testing Program, 2017

• **CaCl2 Extractable B (mg/kg)**	**12C2**
• **Electrical Cond (dS/m)**	**3A1**
• **Exch Calcium (cmol+/kg)**	**15A1**
• **Exch Calcium (cmol+/kg)**	**15D3**
• **Exch Potassium (cmol+/kg)**	**15A1**
• **Ext Copper (mg/kg)**	**12A1**
• **Ext Iron (mg/kg)**	**12A1**
• **Colwell P (mg/kg)**	**9B1**
• **Olsen P (mg/kg)**	**9C1**
• **Ext Zinc (mg/kg)**	**12A1**
• **M3-Aluminium (mg/kg)**	**18F1**
• **M3-Calcium (mg/kg)**	**18F1**
• **M3-Iron (mg/kg)**	**18F1**
• **M3-Magnesium (mg/kg)**	**18F1**
• **M3-Manganese (mg/kg)**	**18F1**
• **M3-Sodium (mg/kg)**	**18F1**
• **M3-Sulphur (mg/kg)**	**18F1**
• **Organic Carbon W&B (%)**	**6A1**
• **PBI Colwell (L/kg)**	**9I2a**
• **Total Nitrogen (%)**	**7A5**

Method codes are from Rayment and Lyons (2011)

D. Lyons
Chairperson, ASPAC

R. Hill
Convenor, Lab Proficiency Committee

APPENDIX II:

Profile Descriptions

BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Core Sample 4001

Melanic Subnatric Black **Sodosol**

SSMID: OM4001

715278m E, 6291275m N, (WGS 84),

Excavated on: **2/04/2014** Logged by:**PJH**

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**poached** Dry:**poached**

Topography
Slope:**1%** Western Aspect
Site Morphology:**Flat**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11	Dark brown light clay with strong grade of polyhedral structure and rough-faced 1 cm peds, breaking to polyhedral peds of 0.5 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5	0
	A12	Dark brown silty clay with moderate grade of granular structure and rough-faced 0.5 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5.5	1
	A13	Very dark grey fine silty clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to subangular blocky peds of 0.5 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6	1.5
50	2A11	Very dark grey fine silty clay loam with moderate grade of angular blocky structure and earthy 5 cm peds, breaking to angular blocky peds of 1 cm. Few (2-10%), medium (2-6mm), strong, ferruginous nodules. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6	4
	2A12	Dark grey silty clay with moderate grade of angular blocky structure and earthy 2 cm peds. Few (2-10%), medium (2-6mm), strong, ferruginous nodules. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Sharp boundary to:	6.5	5
100	B2	Very dark brown medium clay with strong grade of lenticular structure and smooth-faced 3 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moist.	7	1.4
		COMMENTS: Depth to A horizon varied from 50 to 100 cm over 1.5 m. Described middle core.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**100cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Core Sample 4002

Bleached Eutrophic Black **Chromosol**

SSMID: OM4002

715193m E, 6291615m N, (WGS 84),

Excavated on: **2/04/2014** Logged by:**PJH**

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**trampled** Dry:**trampled**

Topography
Slope:**5%** Western Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark yellowish brown silty clay loam with moderate grade of granular structure and earthy 0.5 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Abrupt boundary to:	5	0.1
	A12	Olive brown silty clay loam with moderate grade of polyhedral structure and rough-faced 1 cm peds. Clods dispersed slightly, and partially slaked in distilled water. Moist. Diffuse boundary to:	5	0.1
50	A2	Light grey fine loam with weak grade of polyhedral structure and rough-faced 1 cm peds. Few (2-10%), medium (2-6mm), weak, ferruginous nodules. Soil had very few faint, brown, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Sharp boundary to:	5	0.1
100	B2	Very dark brown medium heavy clay with strong grade of polyhedral structure and smooth-faced 5 cm peds. Soil had very few faint, brown, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moist.	5	0
150		COMMENTS: 0		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**100cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Core Sample 4005

SSMID: OM4005

Excavated on: **2/04/2014** Logged by:**PJH**

Manganic Mesotrophic Brown **Kandosol**

716814m E, 6294202m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Eastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Brown fine sandy clay loam with weak grade of angular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	0.1
	B1		Light olive brown light clay with moderate grade of polyhedral structure and rough-faced 2 cm peds. Few (2-10%), coarse (6-20mm), weak, ferromangiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	5	0
50					
	B2		Pale brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Few (2-10%), coarse (6-20mm), weak, ferromangiferous nodules. Soil had very few distinct, yellow, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Abrupt boundary to:	5.5	0
100					
	C		Light brownish grey light clay with weak grade of polyhedral structure and rough-faced 5 cm peds. Many (20-50%), coarse (6-20mm), weak, ferromangiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	5.5	0
			COMMENTS: Vertical biopores common to 1 m.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Metamorphic**
Base of Observations:
equipment refusal at 120 cm
Rootzone:**90cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 701

SSMID: OM701

Excavated on: **20/03/2017** Logged by:**GK**

Manganic Mottled-Subnatric Grey **Sodosol**

714918m E, 6292296m N, (WGS 84),

Landscape Properties
Landform Element:**Bench**
Vegetation Community:**Unknown**
Growth Form:**tussock grass, sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**80%**
Surface Condition Wet:**Trampled** Dry:**Trampled**

Topography
Slope:**5%** Eastern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark brown light clay with moderate grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5	0.4
	2A1		Very dark grey clay loam with weak grade of angular blocky structure and rough-faced 5 cm peds. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	6	0.2
	2A2e		Grey clay loam with massive grade of structure. Clods were moderately dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	6	0.3
50	2B1		Grey medium clay with moderate grade of prismatic structure and smooth-faced 10 cm peds, breaking to angular blocky peds of 5 cm. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	6.5	0.7
	2B2		Reddish brown light medium clay with weak grade of lenticular structure and rough-faced 5 cm peds, breaking to subangular blocky peds of 2 cm. Many (20-50%), coarse (6-20mm), weak, manganiferous nodules. Soil had common distinct, yellow, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	7	0.2
100	2B3		Weak red light medium clay with weak grade of subangular blocky structure and rough-faced 5 cm peds. Common (10-20%), dispersed, reoriented, non-weathered, quartz cobbles (60-200mm). Many (20-50%), coarse (6-20mm), weak, manganiferous nodules. Soil had many distinct, grey, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moist.	7.5	0.4
150			COMMENTS: Bottom of hole is saturated.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Not Identified**
Base of Observations: **Soil Continues** at 150 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 702

SSMID: OM702

Excavated on: **20/03/2017** Logged by:**PJH**

Manganic Subnatric Grey **Sodosol**

715449m E, 6292646m N, (WGS 84),

Landscape Properties
Landform Element:**Hillslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Tree, Tussock Grass, Sod Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**Trampled** Dry:**Trampled**

Topography
Slope:**7%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Greyish brown fine sandy clay loam with moderate grade of polyhedral structure and rough-faced 10 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Dry. Abrupt boundary to:	5.5	
	A2e		6	
	B1	Brown fine sandy loam with weak grade of polyhedral structure and earthy 5 cm peds. Clods were not dispersive, and did not slake in distilled water. Dry. Clear boundary to:	7	0
50	B2	Brown light clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to subangular blocky peds of 2 cm. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	7.5	0
	B3	Light brownish grey light clay with weak grade of subangular blocky structure and earthy 2 cm peds. Abundant (>50%), very coarse (20-60mm), strong, manganiferous concretions. Clods dispersed slightly, and slaked completely in distilled water. Dry. Diffuse boundary to:	7.5	0.1
100		Yellowish brown light medium clay with moderate grade of subangular blocky structure and earthy 2 cm peds. Many (20-50%), coarse (6-20mm), strong, manganiferous nodules. Soil had common distinct, grey, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moist.		
150		COMMENTS: Good water holding capacity. LSC 3 - capable of cultivation but not highly regularly.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Not Identified**
Base of Observations: **Soil Continues** at 150 cm
Rootzone:**90cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 703

Manganic Eutrophic Red **Chromosol**

SSMID: OM703

716086m E, 6292506m N, (WGS 84),

Excavated on: **21/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**Hillslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**Soft** Dry:**Firm**

Topography
Slope:**7%** Eastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
0	A11	Brown clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Dry. Clear boundary to:	6	
	A12		6	
	B1	Yellowish red clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	6.5	0.1
50		Dark red light medium clay with moderate grade of polyhedral structure and rough-faced 2 cm peds. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:		
	B2	Reddish brown light medium clay with moderate grade of polyhedral structure and rough-faced 5 cm peds. Common (10-20%), medium (2-6mm), weak, manganiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6.5	
100				
	B3	Yellowish red light medium clay with moderate grade of polyhedral structure and rough-faced 5 cm peds. Many (20-50%), medium (2-6mm), weak, manganiferous soft segregations. Soil had few distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	7	
150		COMMENTS: Good soil. Sharp boundary to strongly leached soil 100m down slope.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Soil**
Continues at 150 cm
Rootzone:**140cm**
BSAL Drainage: **Well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 704

SSMID: OM704

Excavated on: **21/03/2017** Logged by:**GK**

Manganic Eutrophic Brown **Chromosol**

714718m E, 6291526m N, (WGS 84),

Landscape Properties
Landform Element:**Hillslope**
Vegetation Community:**Unknown**
Growth Form:**tussock grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**Soft** Dry:**Firm**

Topography
Slope:**3%** Northeastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Greyish brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Dry. Clear boundary to:	5.5	
	A2		Brown fine clay loam with weak grade of polyhedral structure and earthy 1 cm peds. Clods were not dispersive, and partially slaked in distilled water. Dry. Clear boundary to:	6	
	B21		Brown fine light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Common (10-20%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
50					
	B22		Light brownish grey fine silty clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Many (20-50%), very coarse (20-60mm), strong, manganiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Dry.	6	
100					
			COMMENTS: Profile silty. 4th layer texture lighter. Colluvial origin?		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**110cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 705

SSMID: OM705

Excavated on: **21/03/2017** Logged by:**GK**

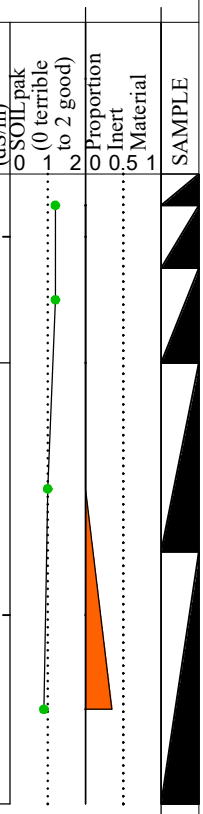
Bleached-Manganic Eutrophic Brown **Dermosol**

713561m E, 6291714m N, (WGS 84),

Landscape Properties
Landform Element:**Hillcrest**
Vegetation Community:**Unknown**
Growth Form:**tussock grass, sod grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**Soft** Dry:**Firm**

Topography
Slope:**0%**
Site Morphology:**Crest**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Dry. Clear boundary to:	5.5	
	A2e		Dark greyish brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Dry. Clear boundary to:	5.5	
50	B21		Yellowish brown fine light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
	B22		Greyish brown fine silty clay with moderate grade of polyhedral structure and rough-faced 2 cm peds. Many (20-50%), very coarse (20-60mm), strong, manganiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Dry.	6	
100			COMMENTS: Silty throughout profile. Similar to 704. Rock outcrop 500m from site. 100cm depth due to hard Manganese layer		



Lithology
Substrate:**Colluvium**
Base of Observations:
equipment refusal at 100 cm
Rootzone:**75cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 706

SSMID: OM706

Excavated on: **22/03/2017** Logged by:**GK**

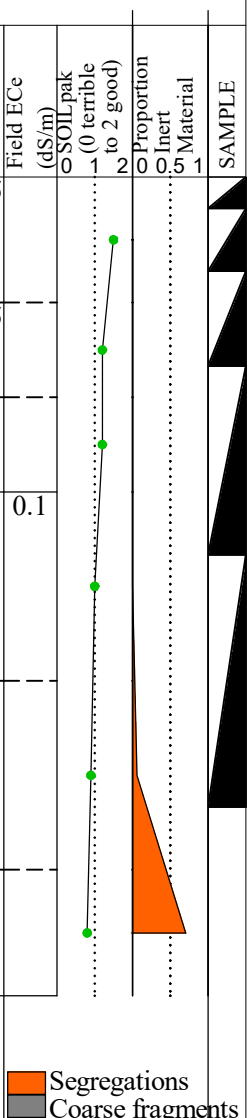
Manganic Eutrophic Brown **Chromosol**

714165m E, 6292244m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass, sod grass**
Site Disturbance:**Extensive Clearing**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**soft** Dry:**firm**

Topography
Slope:**4%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark yellowish brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	A2	Brown fine sandy clay loam with weak grade of angular blocky structure and earthy 2 cm peds. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Clear boundary to:	5.5	
	AB	Pale red fine clay loam with weak grade of angular blocky structure and earthy 2 cm peds. Soil had many distinct, yellow, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Clear boundary to:	6	
50	B21	Reddish brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Soil had few distinct, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	0.1
	B22	Greyish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Few (2-10%), coarse (6-20mm), strong, manganiferous nodules. Soil had few distinct, yellow, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	6	
100	B3	Greyish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Abundant (>50%), very coarse (20-60mm), strong, manganiferous nodules. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist.	6	
		COMMENTS: 75 m to rock outcrop in adjacent paddock. Possible equip refusal deeper due to manganese layer. Multiple earthworms in A1-A2 layers.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**60cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 711

SSMID: OM711

Excavated on: **21/03/2017** Logged by:**PJH**

Bleached-Manganic Eutrophic Grey **Chromosol**

714820m E, 6291854m N, (WGS 84),

Landscape Properties
Landform Element:**footslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass, Tussock Grass, forb**
Site Disturbance:**occasional cultivation**
Land Use:**Improved Pasture** Groundcover:**80%**
Surface Condition Wet:**poached** Dry:**firm**

Topography
Slope:**2%** Eastern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11	Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 2 cm peds, breaking to subangular blocky peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	A12		4.5	
	A2e	Brown silty clay loam with weak grade of subangular blocky structure and earthy 5 cm peds, breaking to subangular blocky peds of 1 cm. Clods were not dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	5	
	B22	White silty clay loam with weak grade of subangular blocky structure and earthy 2 cm peds, breaking to subangular blocky peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	5	0.1
50		Grey light medium clay with moderate grade of prismatic structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Very few (<2%), coarse (6-20mm), weak, manganiferous nodules. Soil had few faint, grey, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:		
100	B23	Grey light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 1 cm. Common (10-20%), very coarse (20-60mm), weak, manganiferous nodules. Soil had few distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	5	
		COMMENTS: Earthworms at 110 cm. Grey mottle is around vertical biopores (wormholes).		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer**
Continues at 130 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





SSM Sustainable Soil Management

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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 712

SSMID: OM712

Excavated on: **22/03/2017** Logged by:**PJH**

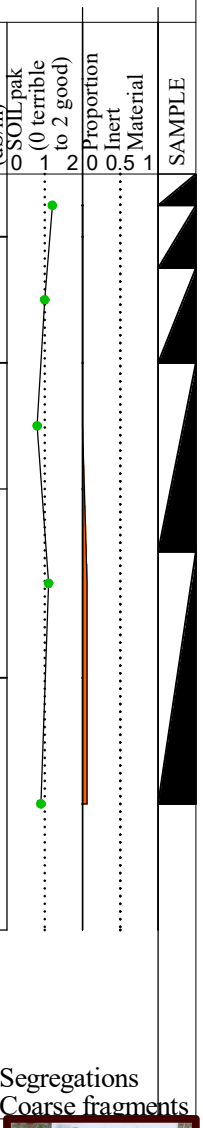
Bleached Eutrophic Grey **Chromosol**

714395m E, 6292156m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**75%**
Surface Condition Wet:**soft** Dry:**hardset**

Topography
Slope:**5%** Northeastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11		Brown silty loam with moderate grade of subangular blocky structure and earthy 2 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Abrupt boundary to:	5	
	A12		Brown silty loam with weak grade of subangular blocky structure and earthy 2 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Abrupt boundary to:	6	
	A2e		Greyish brown fine sandy loam with weak grade of subangular blocky structure and earthy 5 cm peds, breaking to peds of 2 cm. Clods dispersed slightly, and slaked completely in distilled water. Dry. Abrupt boundary to:	6	
50	B2		Light brown medium clay with moderate grade of prismatic structure and earthy 3 cm peds, breaking to polyhedral peds of 1 cm. Few (2-10%), fine (<2mm), strong, ferruginous nodules. Soil had few distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
	B3		Pinkish grey medium clay with strong grade of prismatic structure and rough-faced 2 cm peds, breaking to polyhedral peds of 1 cm. Few (2-10%), fine (<2mm), weak, manganiferous veins. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	6	
100					
			COMMENTS: Thickness of A12 varies from 10 cm to 20 cm in the pit. Depth to bottom of A2 is relatively consistent. Few large visible macropores at 120 cm.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 719

SSMID: OM719

Excavated on: **23/03/2017** Logged by:**PJH**

Eutrophic Subnatric Black **Sodosol**

714980m E, 6292697m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, forb**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**1%** Western Aspect
Site Morphology:**Flat**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

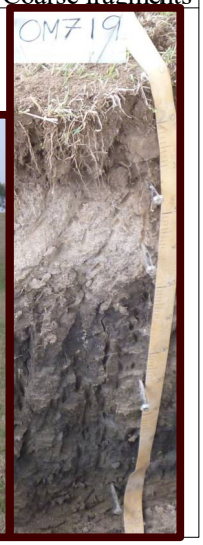
DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown silty clay with strong grade of subangular blocky structure and rough-faced 2 cm peds, breaking to granular peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A2e		Brown silty loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to peds of 1 cm. Soil had common faint, brown, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Dry. Clear boundary to:	6.5	
50	B22		Black medium heavy clay with strong grade of polyhedral structure and smooth-faced 15 cm peds, breaking to lenticular peds of 1 cm. Very few (<2%), medium (2-6mm), weak, calcareous nodules. Clods dispersed slightly, and did not slake in distilled water. Slight effervescence to 1 Molar HCl. Moderately moist. Diffuse boundary to:	7.5	1.2
100	B23		Very dark greyish brown medium heavy clay with strong grade of polyhedral structure and smooth-faced 10 cm peds, breaking to peds of 5 cm. Very few (<2%), medium (2-6mm), weak, calcareous nodules. Clods were not dispersive, and did not slake in distilled water. Slight effervescence to 1 Molar HCl. Moderately moist. Clear boundary to:	8	2.5
150	B3		Light olive brown medium heavy clay with strong grade of polyhedral structure and smooth-faced 5 cm peds, breaking to peds of 2 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. COMMENTS: A2 varies from 5 cm to 30 cm across the pit. 50% quartz gravel (1 to 3cm) at bottom of pit. Topsoil is good medium for root growth.	8	3.2

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Igneous**
Base of Observations: **Soil**
Continues at 130 cm
Rootzone:**100cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 722

SSMID: OM722

Excavated on: **23/03/2017** Logged by:**GK**

Bleached-Manganic Mesotrophic Yellow **Dermosol**

714650m E, 6292527m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**2%** Flat Aspect
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	A2e		Greyish brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	6.5	
50	B2		Light yellowish brown light clay with weak grade of polyhedral structure and rough-faced 5 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6.5	0.1
100	B3		Greyish brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Many (20-50%), very coarse (20-60mm), strong, manganiferous nodules. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist.	6.5	
			COMMENTS: Chromosol - dispersive from 80 to 120 cm. Manganese increasing with depth 80 to 120 cm.		

SOILpak (0 terrible to 2 good): 0 1 2

Proportion Inert Material: 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**90cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 723

Manganic Eutrophic Brown **Chromosol**

SSMID: OM723

715215m E, 6292945m N, (WGS 84),

Excavated on: **23/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**5%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A	Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	A2	Greyish brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	5.5	
	B21	Brown light medium clay with moderate grade of polyhedral structure and rough-faced 2 cm peds. Few (2-10%), medium (2-6mm), strong, manganiferous nodules. Soil had few faint, pale, weathered mottles. Clods were moderately dispersive, and did not slake in distilled water. Moderately moist. Diffuse boundary to:	6	0.1
50	B22	Dark yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), medium (2-6mm), weak, manganiferous soft segregations. Soil had many distinct, yellow, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Diffuse boundary to:	6	
	B23	Yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), weak, manganiferous soft segregations. Soil had many distinct, yellow, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	6	
100				
		COMMENTS: Manganese below topsoil and nodules at 25 to 50 cm.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Soil Continues** at 130 cm
Rootzone:**90cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 724

SSMID: OM724

Excavated on: **23/03/2017** Logged by:**GK**

Eutrophic Mottled-Subnatric Brown **Sodosol**

715778m E, 6293303m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**95%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**7%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Few (2-10%), dispersed, reoriented, strongly weathered, quartz coarse gravel (20-60mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	6.5	
	2A1		Dark yellowish brown fine clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Clear boundary to:	6.5	
50	2A2e		Greyish brown fine sandy clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	8	
	2B21		Yellowish brown light medium clay with moderate grade of prismatic structure and rough-faced 5 cm peds, breaking to angular blocky peds of 3 cm. Soil had common distinct, grey, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	9	0.7
100	2B22		Brown light medium clay with moderate grade of lenticular structure and rough-faced 4 cm peds, breaking to subangular blocky peds of 3 cm. Common (10-20%), coarse (6-20mm), weak, manganiferous soft segregations. Soil had many distinct, yellow, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moist.	9	0.8
150			COMMENTS: Alluvium over colluvium - physical barrier at 60 cm due to prismatic structure (clay). Chemical barrier due to salinity at 60 cm.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium over colluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 737

SSMID: OM737

Excavated on: **24/03/2017** Logged by:**PJH**

Haplic Mesotrophic Red **Dermosol**

715593m E, 6294314m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Eastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark reddish brown silty clay with strong grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 0.2 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5.5	
	B1		Reddish brown silty clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Clear boundary to:	7.5	
	B22		Yellowish red silty clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Soil had very few distinct, brown, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	7.5	0.2
50					
	B23		Yellowish red silty clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Very few (<2%), coarse (6-20mm), weak, manganiferous veins. Soil had few distinct, dark, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	7.5	
100					
			COMMENTS: Well drained soil that appears to be productive.		

SOILpak (0 terrible to 2 good): 0 1 2

Proportion Inert Material: 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**110cm**
BSAL Drainage: **Well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 738

Manganic Eutrophic Yellow **Chromosol**

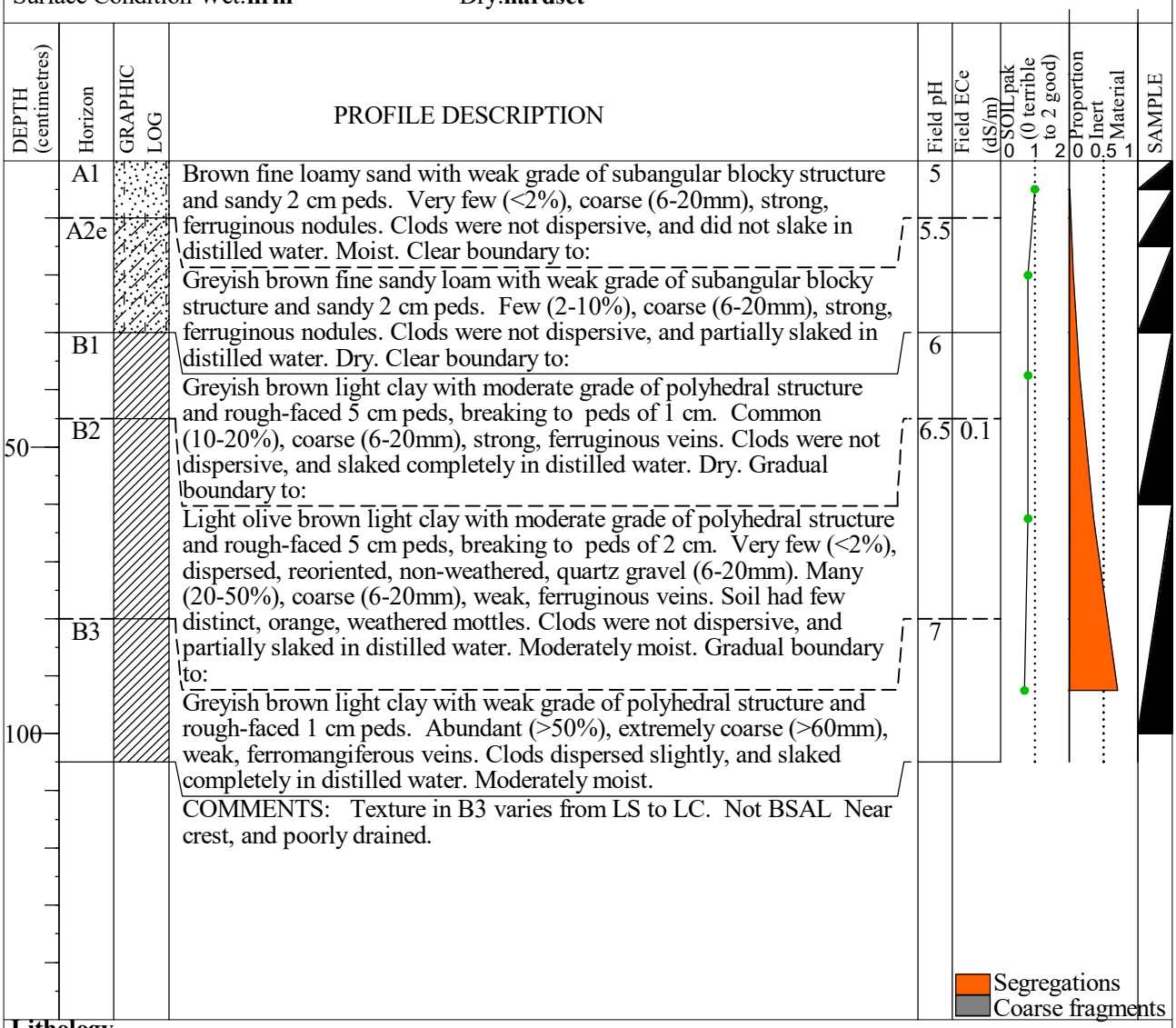
SSMID: OM738

715415m E, 6293536m N, (WGS 84),

Excavated on: **24/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**woodland Grass Understory**
Growth Form:**Sod grass, forb**
Site Disturbance:**limited clearing**
Land Use:**volunteer/native pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Southwestern Aspect
Site Morphology:**Crest**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**



Lithology
Substrate:**Metamorphic**
Base of Observations: **Layer**
Continues at 105 cm
Rootzone:**55cm**
BSAL Drainage: **Poorly drained**
Slowly permeable

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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 739

SSMID: OM739

Excavated on: **24/03/2017** Logged by:**PJH**

Bleached-Manganic Eutrophic Brown **Chromosol**

715342m E, 6291503m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, forb**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**75%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**1%** Western Aspect
Site Morphology:**Flat**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine sandy loam with weak grade of angular blocky structure and sandy 2 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5	
	A2e	Very pale brown fine sandy loam with weak grade of angular blocky structure and sandy 2 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	5.5	
	B1	Yellowish brown light clay with weak grade of polyhedral structure and earthy 5 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	
	B2	Yellowish brown light clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6.5	0.1
50	B31	Light grey light clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to peds of 1 cm. Few (2-10%), coarse (6-20mm), weak, ferromangiferous veins. Soil had very few faint, brown, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	7	
	B32	Light grey fine sandy clay loam with weak grade of polyhedral structure and sandy 1 cm peds. Abundant (>50%), very coarse (20-60mm), weak, ferromangiferous veins. Soil had very few faint, brown, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist.	7	
100				
		COMMENTS: This valley flat has 2 terraces. Site OM739 is on the upper terrace.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 125 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 740

SSMID: OM740

Excavated on: **24/03/2017** Logged by:**PJH**

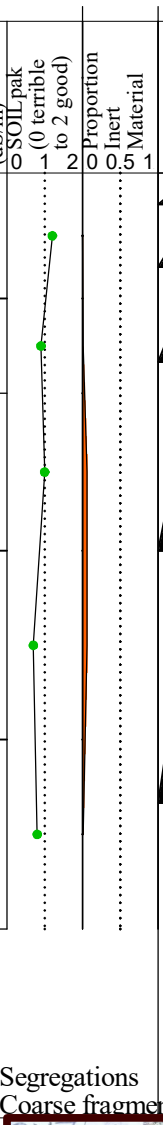
Bleached-Mottled Eutrophic Grey **Dermosol**

716013m E, 6291569m N, (WGS 84),

Landscape Properties
Landform Element:**flood-out**
Vegetation Community:**swamp complex**
Growth Form:**tussock grass, forb**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**80%**
Surface Condition Wet:**poached** Dry:**poached**

Topography
Slope:**2%** Southwestern Aspect
Site Morphology:**Open Depression**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown silty clay with moderate grade of polyhedral structure and rough-faced 7 cm peds, breaking to subangular blocky peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6	
	A2e		Brown light clay with weak grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Very few (<2%), medium (2-6mm), weak, ferruginous nodules. Soil had very few faint, brown, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Clear boundary to:	6	
	B1		Brown light medium clay with weak grade of polyhedral structure and rough-faced 7 cm peds. Few (2-10%), coarse (6-20mm), weak, ferruginous nodules. Soil had very few faint, brown, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6.5	
50	B22		Grey medium clay with moderate grade of polyhedral structure and rough-faced 2 cm peds, breaking to peds of 1 cm. Few (2-10%), coarse (6-20mm), weak, ferromangiferous nodules. Soil had few faint, brown, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	7	0.1
100	B23		Dark grey light medium clay with moderate grade of polyhedral structure and smooth-faced 10 cm peds, breaking to peds of 1 cm. Very few (<2%), coarse (6-20mm), weak, ferromangiferous nodules. Soil had many faint, brown, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist.	7	0.1
			COMMENTS: Relatively dense stand of pinrushes around pit.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer**
Continues at 120 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 741

SSMID: OM741

Excavated on: **24/03/2017** Logged by:**GK**

Bleached Mesotrophic Brown **Chromosol**

714986m E, 6294560m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**0%**
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy loam with weak grade of subangular blocky structure and sandy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	
	A2e		Pale brown fine sandy loam with weak grade of subangular blocky structure and sandy 2 cm peds. Abundant (50-90%), dispersed, reoriented, strongly weathered, quartz cobbles (60-200mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	6	
50	B		Dark yellowish brown light medium clay with moderate grade of columnar structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	6	0.1
100	C		Dark yellowish brown clay loam with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (50-90%), stratified, undisturbed, strongly weathered, quartz fine gravel (2-6mm). Soil had common distinct, red, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist.	6	
			COMMENTS: Limitations: physical barrier and low fertility.		



Lithology
Substrate:**Granite**
Base of Observations: **Soil Continues** at 120 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Slowly permeable

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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 742

SSMID: OM742

Excavated on: **24/03/2017** Logged by:**GK**

Bleached Mesotrophic Brown **Chromosol**

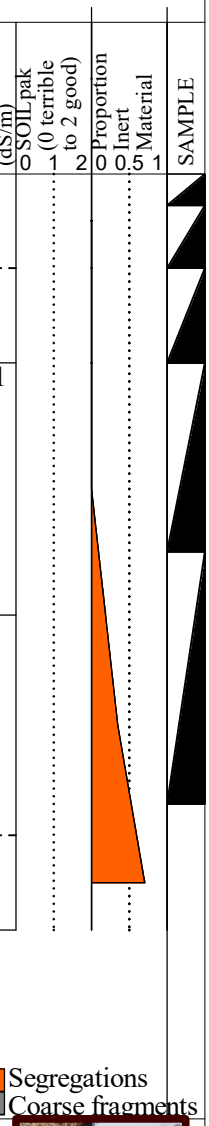
715283m E, 6294059m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**7%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown silty clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A2e		Yellowish brown silty clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Abrupt boundary to:	7	
50	B2		Yellowish brown light medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 2 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	0.1
100	C		Brownish yellow light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Many (20-50%), stratified, undisturbed, strongly weathered, parent material coarse gravel (20-60mm). Clods were not dispersive, and slaked completely in distilled water. Dry. Diffuse boundary to:	7	
	C		Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (50-90%), stratified, undisturbed, weakly weathered, parent material stones (200-600mm). Clods were not dispersive, and slaked completely in distilled water. Dry.	7	

COMMENTS: Slowly permeable because of prismatic structure in B2. Parent material is angular platy in shape.



Lithology
Substrate:**Siltstone/Mudstone**
Base of Observations:
bedrock reached at 120 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

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Detail Pit 743

SSMID: OM743

Excavated on: **24/03/2017** Logged by:**GK**

Bleached Eutrophic Black **Chromosol**

716162m E, 6293874m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**limited clearing**
Land Use:**Improved Pasture** Groundcover:**95%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**0%**
Site Morphology:**Flat**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Very dark greyish brown silty clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A2e		Very dark grey silty clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	7	
	A3		Very dark greyish brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Dry. Abrupt boundary to:	7	
50	B11		Very dark grey medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	6.5	0
100	B12		Very dark grey medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had common distinct, yellow, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist.	7	0.3
			COMMENTS: Good root growth but prismatic structure at 50 cm.		

SOILpak (0 terrible to 2 good): 0 1 2

Proportion Inert Material: 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**90cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 744

SSMID: OM744

Excavated on: **24/03/2017** Logged by:**GK**

Bleached Mesotrophic Grey **Chromosol**

715287m E, 6291708m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**95%**
Surface Condition Wet:**soft** Dry:**Firm**

Topography
Slope:**0%**
Site Morphology:**Flat**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Abrupt boundary to:	5.5	
	2A2e		Greyish brown fine clay loam with weak grade of polyhedral structure and earthy 2 cm peds. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Abrupt boundary to:	5.5	
50	2B21		Dark greyish brown light medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	6	0
100	2B22		Dark greyish brown light medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had many distinct, yellow, weathered mottles. Clods were moderately dispersive, and did not slake in distilled water. Moderately moist.	7	0
			COMMENTS: Chemical barrier 85 cm - dispersive.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 115 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 745

SSMID: OM745

Excavated on: **24/03/2017** Logged by:**GK**

Manganic Mesotrophic Brown **Dermosol**

715606m E, 6291234m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**1%** Southwestern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	
	B		Yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	6	0.1
50	C		Brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous nodules. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	6.5	
100			COMMENTS: 55-90 cm FM - physical barrier.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Soil Continues** at 90 cm
Rootzone:**55cm**
BSAL Drainage: **Imperfectly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 746

SSMID: OM746

Excavated on: **25/03/2017** Logged by:**GK**

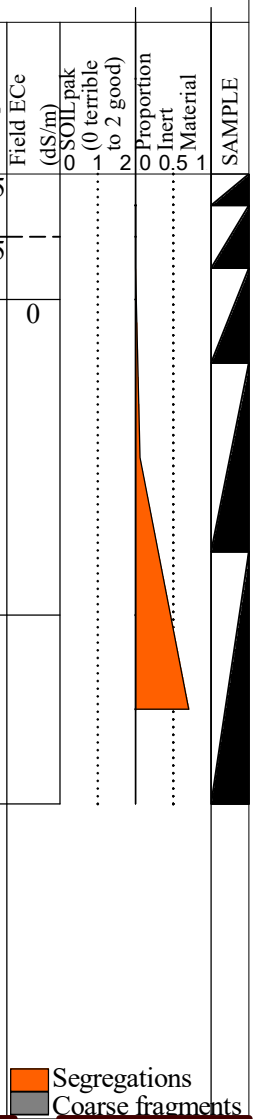
Manganic Mesotrophic Brown **Chromosol**

716293m E, 6292052m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, rush**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**8%** Southwestern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A12		Dark yellowish brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B		Dark yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Few (2-10%), medium (2-6mm), strong, manganiferous concretions. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Clear boundary to:	6	0
50					
	C		Brown fine clay loam with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous nodules. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist.	6	
100			COMMENTS: Pinrushes around pit indicate waterlogging common.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**70cm**
BSAL Drainage: **Imperfectly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 747

SSMID: OM747

Excavated on: **25/03/2017** Logged by:**GK**

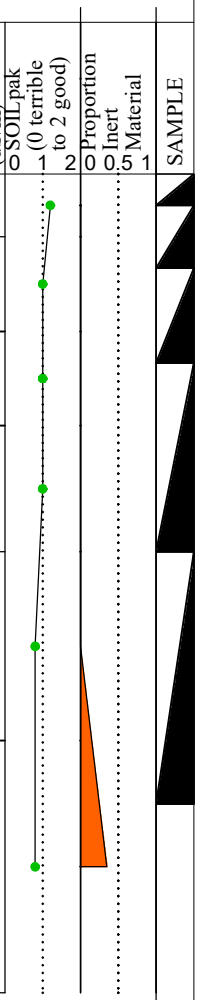
Manganic Mottled-Subnatric Brown **Sodosol**

716864m E, 6292279m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**limited clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**6%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A	Dark brown clay loam with weak grade of polyhedral structure and earthy 3 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5	
	2A1	Dark grey clay loam with weak grade of polyhedral structure and earthy 3 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5	
	2A2e	Light brownish grey fine sandy clay loam with massive grade of structure and earthy . Clods dispersed strongly, and partially slaked in distilled water. Moderately moist. Clear boundary to:	7	
	2A3	Brown silty clay loam with massive grade of structure and earthy . Clods dispersed strongly, and did not slake in distilled water. Moderately moist. Gradual boundary to:	7	
50	B21	Dark yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Soil had common prominent, grey, weathered mottles. Clods were moderately dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	7	0.1
100	B22	Greyish brown medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Many (20-50%), coarse (6-20mm), weak, manganiferous soft segregations. Soil had common prominent, yellow, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	6.5	0.1
		COMMENTS: Site receives run-on from hill to west.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 748

SSMID: OM748

Mottled Mesotrophic Brown **Dermosol**

Excavated on: **25/03/2017** Logged by:**GK**

716949m E, 6291876m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**6%** Southern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11		Dark brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	4.5	
	A12		Dark yellowish brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B11		Dark yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	5.5	0
50					
	B12		Brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), coarse (6-20mm), weak, ferromangiferous soft segregations. Soil had common distinct, yellow, weathered mottles. Clods were moderately dispersive, and partially slaked in distilled water. Moderately moist.	5	
100					
			COMMENTS: Dispersion 70 - 120 cm. Acidic soil with low fertility associated with moderately well drained profile.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 749

SSMID: OM749

Excavated on: **25/03/2017** Logged by:**GK**

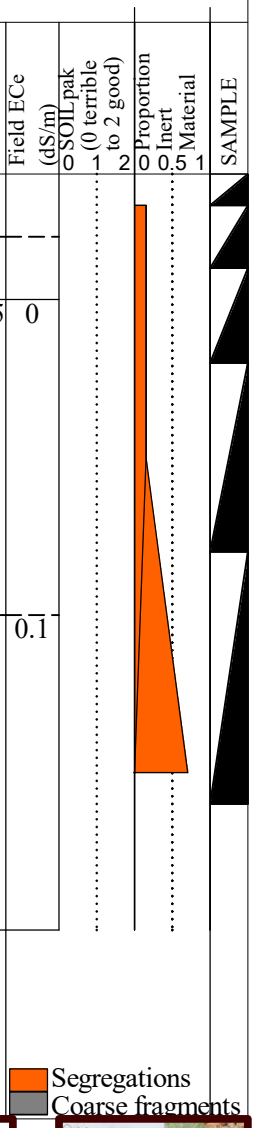
Bleached-Manganic Mesotrophic Brown **Kurosol**

717214m E, 6292284m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass, rush**
Site Disturbance:**limited clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**soft** Dry:**Firm**

Topography
Slope:**9%** Western Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**2**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Common (10-20%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2e			5	
	B2		Brown clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Common (10-20%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	0
50			Yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), stratified, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Diffuse boundary to:		
	B3		Brownish yellow silty clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Abundant (>50%), coarse (6-20mm), weak, ferruginous soft segregations. Soil had common distinct, grey, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	6	0.1
100					
			COMMENTS: Quartz band from 50 - 55 cm. Pit is near break in slope from eroding soil with about 2% unattached quartz cobbles upslope and poorly drained valley floor (in site photo) to north.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 750

SSMID: OM750

Excavated on: **25/03/2017** Logged by:**GK**

Bleached-Mottled Magnesic Brown **Kurosol**

717297m E, 6291644m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**6%** Southwestern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Many (20-50%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	6.5	
	A2e		Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Many (20-50%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
50	B		Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz fine gravel (2-6mm). Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	5.5	0
100	C		Strong brown silty clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), stratified, undisturbed, strongly weathered, parent material coarse gravel (20-60mm). Soil had many distinct, grey, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist.	5	
			COMMENTS: 75 - 120 cm siltstone, vertical orientation. No BSAL - slope and fertility. pH good in A1. Looks like pasture established 2 months ago, so limed then. About 5% quartz cobbles on surface around pit.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Siltstone/Mudstone**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**55cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 751

Haplic Eutrophic Red **Dermosol**

SSMID: OM751

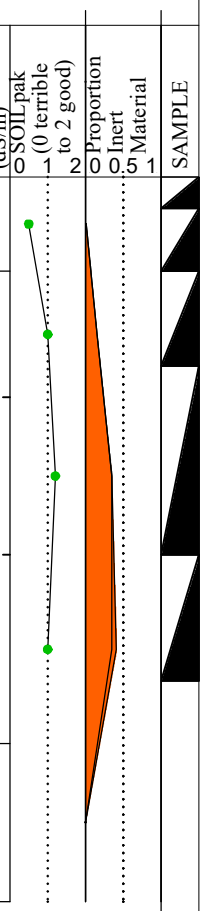
716386m E, 6292434m N, (WGS 84),

Excavated on: **25/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**60%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Western Aspect
Site Morphology:**Ridge**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Brown silty clay loam with weak grade of polyhedral structure and rough-faced 5 cm peds. Very few (<2%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Clods dispersed slightly, and partially slaked in distilled water. Moist. Clear boundary to:	6	
	B1		Red silty clay with moderate grade of polyhedral structure and rough-faced 15 cm peds, breaking to subangular blocky peds of 1 cm. Common (10-20%), dispersed, reoriented, non-weathered, quartz cobbles (60-200mm). Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	6	
	B2		Red light clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Many (20-50%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	6.5	0
50	B3		Red light clay with moderate grade of subangular blocky structure and rough-faced 0.5 cm peds. Many (20-50%), dispersed, reoriented, non-weathered, quartz cobbles (60-200mm). Few (2-10%), coarse (6-20mm), weak, manganiferous soft segregations. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	
	C		Dry.		
100			COMMENTS: C horizon is weathered metamorphic rock based on thin laminations (<5 mm) and presence of mica. Quartz cobbles common in C.		



Lithology
Substrate:**Metamorphic**
Base of Observations:
bedrock reached at 115 cm
Rootzone:**75cm**
BSAL Drainage: **Moderately well drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 752

SSMID: OM752

Excavated on: **25/03/2017** Logged by:**PJH**

Haplic Eutrophic Brown **Chromosol**

717698m E, 6292367m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Southern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown sandy loam with weak grade of subangular blocky structure and earthy 5 cm peds, breaking to subangular blocky peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	6	
	A2		5.5	
	A3	Yellowish brown fine sandy loam with weak grade of polyhedral structure and earthy 3 cm peds, breaking to polyhedral peds of 1 cm. Soil had very few distinct, dark, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6	
	B2	Yellowish brown sandy clay loam with weak grade of polyhedral structure and earthy 5 cm peds, breaking to subangular blocky peds of 1 cm. Many (20-50%), stratified, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	7	0.1
50	B3	Brown medium clay with strong grade of prismatic structure and smooth-faced 5 cm peds, breaking to polyhedral peds of 2 cm. Very few (<2%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	7	
	C	Dark yellowish brown medium clay with strong grade of prismatic structure and smooth-faced 2 cm peds, breaking to peds of 1 cm. Soil had very few distinct, dark, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	7.5	
100		Strong brown light clay with weak grade of structure. Clods were not dispersive, and did not slake in distilled water. Moderately moist.		
		COMMENTS: 5% Quartz cobbles on surface. C horizon is weathered finely laminated siltstone.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Siltstone/Mudstone**
Base of Observations:
bedrock reached at 120 cm
Rootzone:**65cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 753

SSMID: OM753

Excavated on: **25/03/2017** Logged by:**PJH**

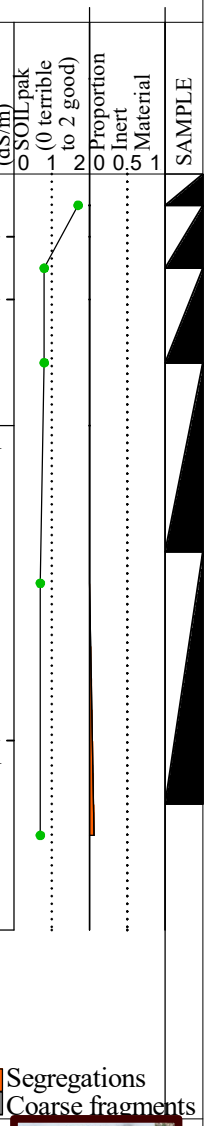
Mottled Mesotrophic Brown **Chromosol**

717389m E, 6291377m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Western Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11		Brown silty loam with weak grade of polyhedral structure and earthy 5 cm peds, breaking to angular blocky peds of 1 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	6.5	
	A12			6	
	A2e		Brown silty loam with weak grade of angular blocky structure and earthy 5 cm peds, breaking to polyhedral peds of 1 cm. Soil had few distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moist. Clear boundary to:	5.5	
50	B1		Pale brown silty loam with weak grade of polyhedral structure and earthy 2 cm peds, breaking to polyhedral peds of 1 cm. Soil had very few distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry. Clear boundary to:	6.5	0.1
			Yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Soil had common distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry. Gradual boundary to:		
100	B23		Brown medium clay with strong grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Few (2-10%), stratified, reoriented, non-weathered, quartz gravel (6-20mm). Soil had many faint, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	6	0.1
			COMMENTS: Profile strongly leached		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable



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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 754

SSMID: OM754

Excavated on: **25/03/2017** Logged by:**PJH**

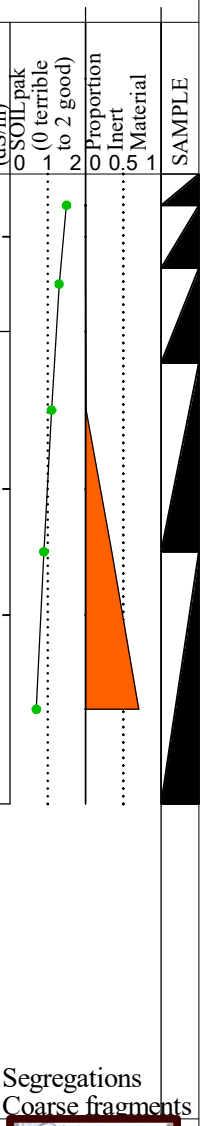
Manganic Eutrophic Brown **Dermosol**

716126m E, 6291226m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Northeastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11	Brown silty clay loam with weak grade of polyhedral structure and sandy 5 cm peds, breaking to peds of 2 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	
	A12	Brown silty clay loam with weak grade of polyhedral structure and sandy 5 cm peds, breaking to subangular blocky peds of 3 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	5.5	
	B2	Yellowish brown silty clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Very few (<2%), medium (2-6mm), weak, manganiferous nodules. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	
50	B31	Brown silty clay loam with weak grade of polyhedral structure and rough-faced 5 cm peds. Many (20-50%), very coarse (20-60mm), strong, ferromangiferous veins. Soil had very few distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.2
	B32	Greyish brown fine sandy loam with weak grade of subangular blocky structure and sandy 5 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous veins. Soil had very few distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.	6.5	
100		COMMENTS: Strongly leached soil		



Lithology
Substrate:**Colluvium**
Base of Observations:
equipment refusal at 100 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 755

Mottled Mesotrophic Brown **Dermosol**

SSMID: OM755

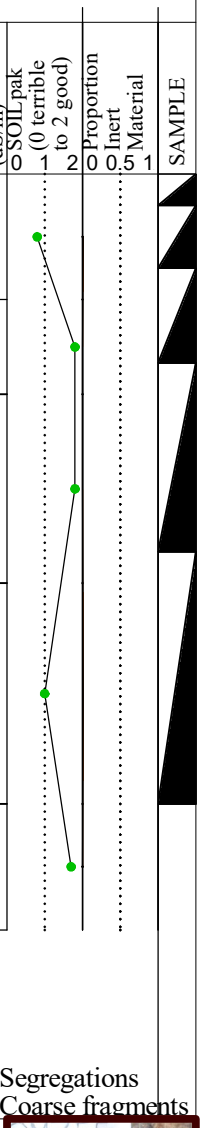
715907m E, 6294851m N, (WGS 84),

Excavated on: **25/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Woodland Grass Understory**
Growth Form:**Sod grass**
Site Disturbance:**Occasional Cultivation**
Land Use:**Improved Pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Eastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown silty loam with weak grade of subangular blocky structure and earthy 7 cm peds, breaking to peds of 1 cm. Very few (<2%), fine (<2mm), strong, ferruginous nodules. Soil had very few faint, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B11		Yellowish brown silty clay with weak grade of polyhedral structure and earthy 10 cm peds, breaking to peds of 1 cm. Soil had few faint, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	6	
	B12		Yellowish brown silty clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to peds of 2 cm. Soil had few faint, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
50					
	B22		Yellowish brown silty clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Very few (<2%), medium (2-6mm), strong, ferruginous nodules. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6.5	
100					
	B23		Yellowish brown silty clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist.	6	
			COMMENTS: A horizon compacted. Vesicular pores (bubbles) common in B1.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 756

SSMID: OM756

Excavated on: **26/03/2017** Logged by:**PJH**

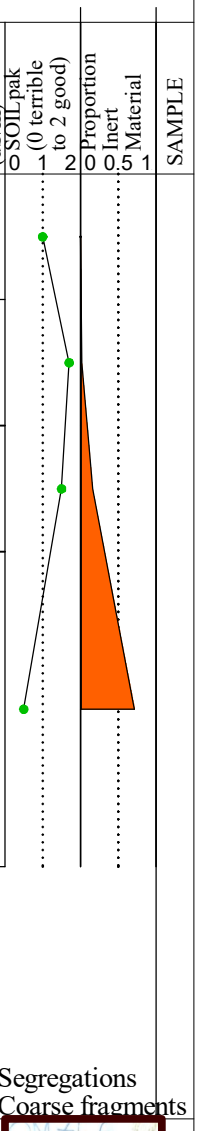
Manganic Mesotrophic Brown **Dermosol**

716004m E, 6295288m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**10%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Strong brown silty clay loam with weak grade of subangular blocky structure and earthy 3 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5	
	B22		Yellowish red silty clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Very few (<2%), fine (<2mm), strong, ferruginous nodules. Soil had few faint, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	6	
50	B23		Dark reddish brown silty clay loam with moderate grade of subangular blocky structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Common (10-20%), fine (<2mm), strong, manganiferous nodules. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	6	0.1
	B3		Strong brown silty clay loam with weak grade of polyhedral structure and rough-faced 1 cm peds. Very few (<2%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Abundant (>50%), fine (<2mm), weak, manganiferous nodules. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.	6.5	
100					
			COMMENTS: No clay layer. B3 is throttle to water flow.		



Lithology
Substrate:**colluvium**
Base of Observations:
equipment refusal at 110 cm
Rootzone:**60cm**
BSAL Drainage: **Imperfectly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 757

SSMID: OM757

Excavated on: **26/03/2017** Logged by:**PJH**

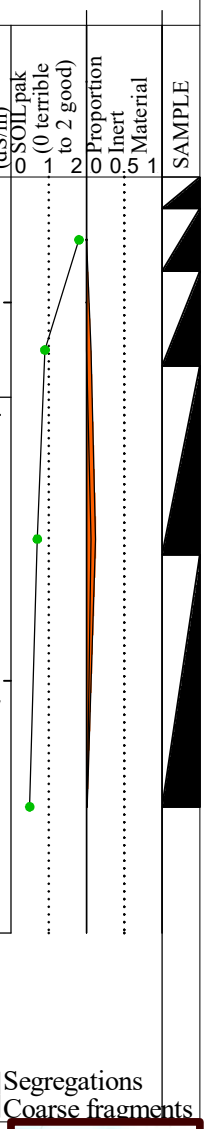
Mottled-Sodic Eutrophic Grey **Dermosol**

716443m E, 6295197m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**3%** Southern Aspect
Site Morphology:**Flat**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Very dark greyish brown silty clay loam with strong grade of subangular blocky structure and rough-faced 2 cm peds, breaking to peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A2		Greyish brown light clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to peds of 1 cm. Few (2-10%), medium (2-6mm), weak, manganiferous nodules. Soil had few distinct, brown, weathered mottles. Clods dispersed slightly, and did not slake in distilled water. Moist. Clear boundary to:	6	
	B22		Dark greyish brown medium clay with moderate grade of polyhedral structure and rough-faced 2 cm peds. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Few (2-10%), medium (2-6mm), weak, manganiferous nodules. Soil had few distinct, orange, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Diffuse boundary to:	8	0.4
50					
	B23		Very dark greyish brown light medium clay with moderate grade of polyhedral structure and rough-faced 2 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had common distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	9	1.2
100					
			COMMENTS: Quartz is angular.		



Lithology
Substrate:**alluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 758

Mottled Mesotrophic Brown **Dermosol**

SSMID: OM758

716490m E, 6295752m N, (WGS 84),

Excavated on: **26/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**cleared no cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark greyish brown clay loam with moderate grade of subangular blocky structure and rough-faced 3 cm peds, breaking to peds of 0.5 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Very few (<2%), medium (2-6mm), strong, manganiferous nodules. Clods dispersed slightly, and did not slake in distilled water. Moist. Gradual boundary to:	5.5	
	A3	Greyish brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Soil had few faint, orange, weathered mottles. Clods were moderately dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	5.5	
50	B1	Brownish yellow light clay with moderate grade of lenticular structure and rough-faced 5 cm peds. Common (10-20%), dispersed, reoriented, strongly weathered, substrate fine gravel (2-6mm). Soil had common faint, grey, biological mottles. Clods were moderately dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	5	0.1
100	B2	Yellow coarse sandy clay with weak grade of polyhedral structure and rough-faced 5 cm peds. Many (20-50%), dispersed, reoriented, strongly weathered, substrate fine gravel (2-6mm). Soil had common distinct, grey, weathered mottles. Clods were moderately dispersive, and partially slaked in distilled water. Dry.	6	
		COMMENTS: Poor example of a dermosol. Ridge with rock outcrop 20m east of site. Pin rushes common. Some dock noted.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**40cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 759

SSMID: OM759

Excavated on: **26/03/2017** Logged by:**PJH**

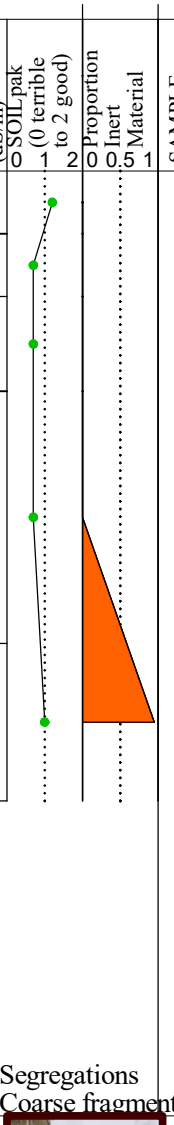
Haplic Mesotrophic Brown **Kandosol**

717502m E, 6295894m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**limited clearing**
Land Use:**volunteer/native pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**12%** Eastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown silty loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	4.5	
	A2			5	
	B1		Brown silty loam with weak grade of polyhedral structure and earthy 3 cm peds, breaking to peds of 1 cm. Soil had few distinct, grey, biological mottles. Clods dispersed slightly, and did not slake in distilled water. Moist. Clear boundary to:	6	
	B2		Strong brown silty clay loam with weak grade of polyhedral structure and rough-faced 5 cm peds. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6.5	0.1
50			Strong brown silty clay with weak grade of polyhedral structure and earthy 5 cm peds. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:		
	C		Pink silty loam with weak grade of subangular blocky structure and sandy 0.5 cm peds. Very abundant (>90%), dispersed, undisturbed, strongly weathered, substrate stones (200-600mm). Clods were not dispersive, and slaked completely in distilled water. Dry.	6.5	
100			COMMENTS: 5th layer substrate - grey soil in vertical fissures in weathered rock		



Lithology
Substrate:**colluvium**
Base of Observations:
equipment refusal at 100 cm
Rootzone:**75cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable



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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 760

SSMID: OM760

Excavated on: **26/03/2017** Logged by:**PJH**

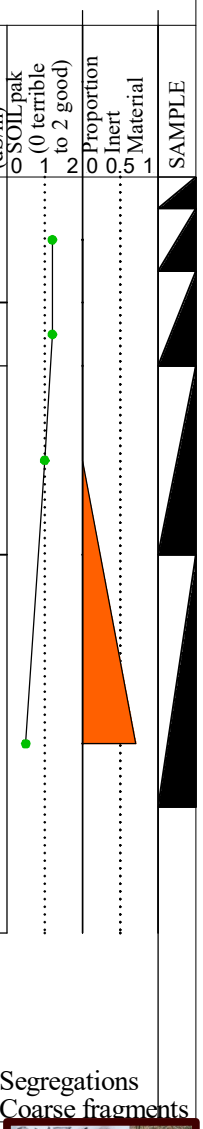
Bleached-Manganic Mesotrophic Brown **Dermosol**

716831m E, 6295493m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**2%** Western Aspect
Site Morphology:**Crest**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown silty loam with weak grade of subangular blocky structure and earthy 1 cm peds, breaking to peds of 0.5 cm. Soil had few faint, orange, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moist. Gradual boundary to:	4.5	
	A2e		Brown silty loam with moderate grade of polyhedral structure and rough-faced 1 cm peds, breaking to peds of 0.5 cm. Soil had very few distinct, grey, biological mottles. Clods dispersed slightly, and partially slaked in distilled water. Moist. Gradual boundary to:	6	
	B2		Yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Soil had few faint, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6.5	0.1
50	B3		Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (>50%), medium (2-6mm), weak, ferromangiferous veins. Soil had many faint, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.	7	
100			COMMENTS: Dark patch at 30cm is infilled tree root. Many pin rushes present. Earthworms throughout profile. Bottom of pit near top of bedrock.		



Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 761

SSMID: OM761

Excavated on: **25/03/2017** Logged by:**GK**

Bleached-Mottled Eutrophic Brown **Chromosol**

717070m E, 6291131m N, (WGS 84),

Landscape Properties
Landform Element:**Hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, Tussock Grass**
Site Disturbance:**extensive clearing**
Land Use:**Improved Pasture** Groundcover:**95%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**2%** Northeastern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine clay loam with weak grade of polyhedral structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	6.5	
	A2e		Brown fine clay loam with weak grade of polyhedral structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	6	
50	B		Yellowish brown light medium clay with moderate grade of prismatic structure and rough-faced 3 cm peds, breaking to angular blocky peds of 2 cm. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Soil had common distinct, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Diffuse boundary to:	6	0
100	C		Dark yellowish brown light medium clay with moderate grade of angular blocky structure and rough-faced 2 cm peds. Abundant (50-90%), dispersed, reoriented, weakly weathered, quartz fine gravel (2-6mm). Common (10-20%), coarse (6-20mm), weak, manganiferous nodules. Soil had many distinct, pale, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry.	6.5	0
			COMMENTS: Relatively shallow soil constrained by abundant gravel below 60 cm..		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Alluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 762

Manganic Eutrophic Red **Dermosol**

SSMID: OM762

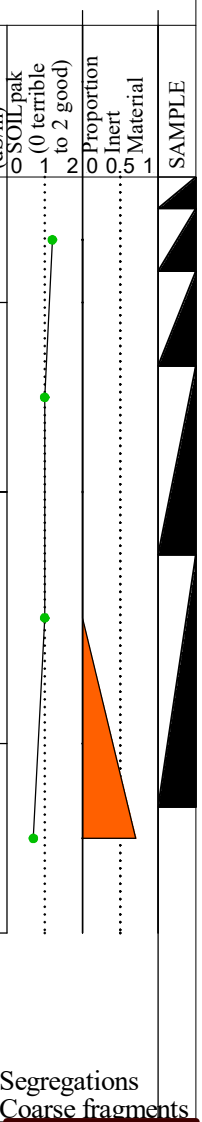
715832m E, 6294625m N, (WGS 84),

Excavated on: **25/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**Unknown**
Growth Form:**Sod grass, tussock grass**
Site Disturbance:**Extensive Clearing**
Land Use:**Improved Pasture** Groundcover:**85%**
Surface Condition Wet:**firm** Dry:**Firm**

Topography
Slope:**9%** Northeastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Reddish brown clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B21		Reddish brown light medium clay with moderate grade of polyhedral structure and rough-faced 4 cm peds, breaking to polyhedral peds of 2 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	6.5	
50	B22		Yellowish red light clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	7	0
100	C		Strong brown light clay with weak grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	7.5	
			COMMENTS: Potential BSAL		



Lithology
Substrate:**Basalt**
Base of Observations: **Soil Continues** at 120 cm
Rootzone:**90cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 763

SSMID: OM763

Excavated on: **26/03/2017** Logged by:**GK**

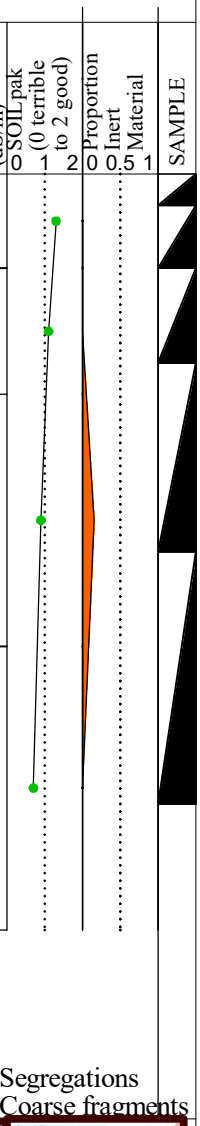
Bleached-Mottled Mesotrophic Brown **Chromosol**

716351m E, 6294754m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**unknown**
Growth Form:**sod grass, rush**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**85%**
Surface Condition Wet:**soft** Dry:**firm**

Topography
Slope:**0%**
Site Morphology:**Flat**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2e		Pale brown fine sandy loam with weak grade of polyhedral structure and earthy 2 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5.5	
50	B2		Yellowish brown light clay with moderate grade of angular blocky structure and rough-faced 4 cm peds. Common (10-20%), coarse (6-20mm), weak, ferromangiferous soft segregations. Soil had common distinct, pale, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	6	
100	B3		Yellowish brown light medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had common prominent, pale, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moist.	5	0
			COMMENTS: Roots stop at top of B3. Expect low fertility.		



Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**75cm**
BSAL Drainage: **Poorly drained**
Slowly permeable



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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 764

SSMID: OM764

Excavated on: **26/03/2017** Logged by:**GK**

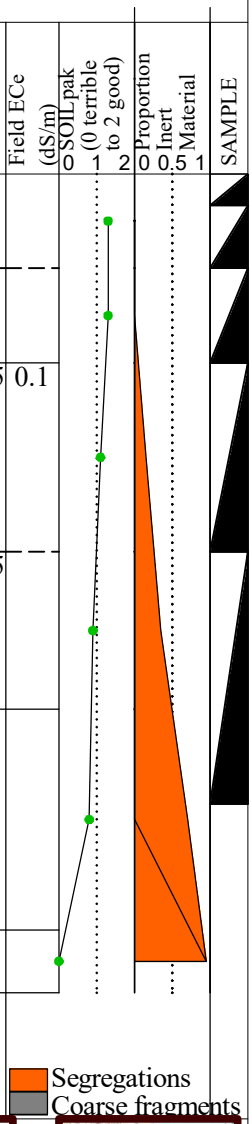
Manganic Mesotrophic Brown **Dermosol**

716260m E, 6295644m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**1%** Northeastern Aspect
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods dispersed slightly, and did not slake in distilled water. Moist. Clear boundary to:	5	
50	B2		Strong brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), medium (2-6mm), strong, ferromangiferous concretions. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	0.1
	B3		Strong brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), strong, ferromangiferous nodules. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Diffuse boundary to:	5.5	
100	C		Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Abundant (>50%), very coarse (20-60mm), weak, ferromangiferous nodules. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Diffuse boundary to:	6	
	R		Very abundant (>90%), stratified, undisturbed, non-weathered, parent material stones (200-600mm).		
			COMMENTS: Soil colours indicate poorly drained topsoil over well drained subsoil. Saffron thistles grow around pit and within 200 m of it. This may indicate extent of well drained subsoil.		



Lithology
Substrate:**siltstone/mudstone**
Base of Observations:
bedrock reached at 130 cm
Rootzone:**90cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 765

SSMID: OM765

Excavated on: **26/03/2017** Logged by:**GK**

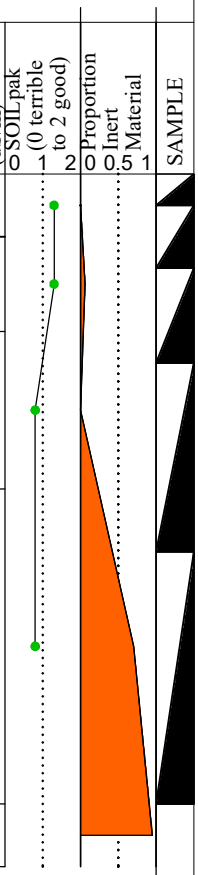
Mesotrophic Subnatric Yellow **Sodosol**

716572m E, 6296106m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass, rush**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**75%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**11%** Western Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**2**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Very dark brown coarse sandy loam with weak grade of subangular blocky structure and sandy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	A2		Pale brown coarse sandy clay loam with weak grade of subangular blocky structure and sandy 2 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods dispersed slightly, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
	B		Yellowish brown coarse sandy clay with weak grade of columnar structure and rough-faced 3 cm peds. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Diffuse boundary to:	5	0
50	C		Light yellowish brown coarse sandy clay loam with weak grade of lenticular structure and rough-faced 2 cm peds. Abundant (50-90%), dispersed, undisturbed, weakly weathered, quartz fine gravel (2-6mm). Soil had common distinct, yellow, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	5.5	
100	R		Very abundant (>90%), dispersed, undisturbed, non-weathered, parent material stones (200-600mm).		
			COMMENTS: Sand coarse in 50-100 zone, derived from weathered granite. Poor structure. Pasture a mixture of sub and native grasses.		



Lithology
Substrate:**granite**
Base of Observations:
bedrock reached at 110 cm
Rootzone:**40cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 766

SSMID: OM766

Excavated on: **26/03/2017** Logged by:**GK**

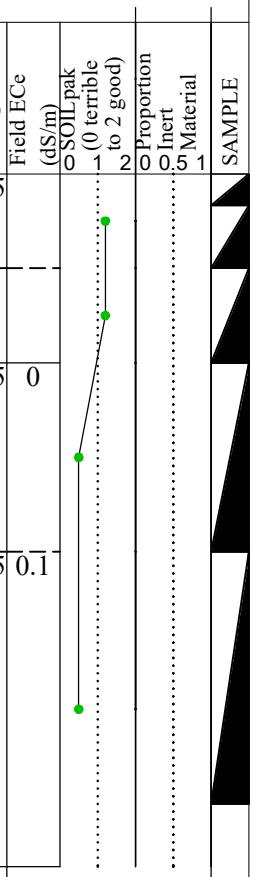
Bleached-Mottled Eutrophic Brown **Chromosol**

717070m E, 6295725m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass, rush**
Site Disturbance:**limited clearing**
Land Use:**improved pasture** Groundcover:**95%**
Surface Condition Wet:**soft** Dry:**firm**

Topography
Slope:**0%**
Site Morphology:**Flat**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A2e		Brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	6	
50	B21		Dark yellowish brown medium clay with moderate grade of prismatic structure and smooth-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Diffuse boundary to:	6.5	0
100	B22		Dark yellowish brown coarse medium clay with moderate grade of prismatic structure and smooth-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had common distinct, yellow, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	6.5	0.1
			COMMENTS: Roots down ped faces. Constraints: poor drainage, prismatic structure in B Horizons.		



Lithology
Substrate:**alluvium**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 767

Vertic Eutrophic Brown **Chromosol**

SSMID: OM767

717416m E, 6295453m N, (WGS 84),

Excavated on: **26/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet: Dry:**firm**

Topography
Slope:**5%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	
	A2e	Brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5.5	
50	B21	Yellowish brown medium heavy clay with moderate grade of prismatic structure and rough-faced 5 cm peds, breaking to angular blocky peds of 3 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	5.5	0.1
100	B22	Dark yellowish brown medium heavy clay with moderate grade of prismatic structure and rough-faced 5 cm peds, breaking to angular blocky peds of 3 cm. Common (10-20%), fine (<2mm), strong, manganiferous nodules. Clods were not dispersive, and partially slaked in distilled water. Moderately moist.	8.5	0.1
		COMMENTS: Good root growth to 50cm. Roots only growing along ped faces from 50 to 80 cm. Vertic properties.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 768

Mottled Natric Brown **Kurosol**

SSMID: OM768

716881m E, 6295110m N, (WGS 84),

Excavated on: **26/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**6%** Northwestern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	4.5	
	A2e		Brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Soil had many faint, yellow, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	5	
50	B21		Yellowish brown light medium clay with weak grade of columnar structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Soil had common distinct, pale, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	4.5	0
	B22		Brown medium clay with moderate grade of prismatic structure and rough-faced 3 cm peds, breaking to angular blocky peds of 2 cm. Soil had many prominent, pale, biological mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist.	4.5	0.1
100			COMMENTS: Limitations: low pH, dispersive, poor drainage, expect low fertility.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 769

SSMID: OM769

Excavated on: **26/03/2017** Logged by:**GK**

Mesotrophic Mottled-Subnatric Brown **Sodosol**

717762m E, 6294922m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass, rush**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**95%**
Surface Condition Wet:**soft** Dry:**firm**

Topography
Slope:**5%** Southern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5	
	A2e	Pale brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Soil had common distinct, yellow, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Moist. Clear boundary to:	5.5	
50	B21	Dark yellowish brown light medium clay with weak grade of columnar structure and rough-faced 3 cm peds. Soil had common distinct, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5.5	0
	B22	Brown medium clay with moderate grade of prismatic structure and smooth-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had common prominent, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5.5	0.1
100	B23	Yellowish brown light medium clay with moderate grade of prismatic structure and smooth-faced 4 cm peds, breaking to angular blocky peds of 3 cm. Soil had common prominent, grey, biological mottles. Clods dispersed slightly, and slaked completely in distilled water. Moderately moist.	5.5	
		COMMENTS: Limitations: poor dispersive, expect low fertility. Pit in contour bank drain		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 770

SSMID: OM770

Excavated on: **26/03/2017** Logged by:**GK**

Bleached-Mottled Mesotrophic Brown **Kurosol**

716986m E, 6294656m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**13%** Southern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2e			5.5	
	B		Yellowish brown fine clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Common (10-20%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods dispersed slightly, and did not slake in distilled water. Moist. Clear boundary to:	4.5	0
50			Strong brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Many (20-50%), dispersed, reoriented, weakly weathered, quartz coarse gravel (20-60mm). Clods were not dispersive, and slaked completely in distilled water. Moist. Clear boundary to:		
	C		Yellowish brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Few (2-10%), dispersed, reoriented, strongly weathered, parent material coarse gravel (20-60mm). Soil had common distinct, pale, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moist.	5	0
100					
			COMMENTS: Not BSAL - slope is 13%. Also acidic. A lot of quartz gravel between 20 and 75 cm.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 771

SSMID: OM771

Excavated on: **26/03/2017** Logged by:**PJH**

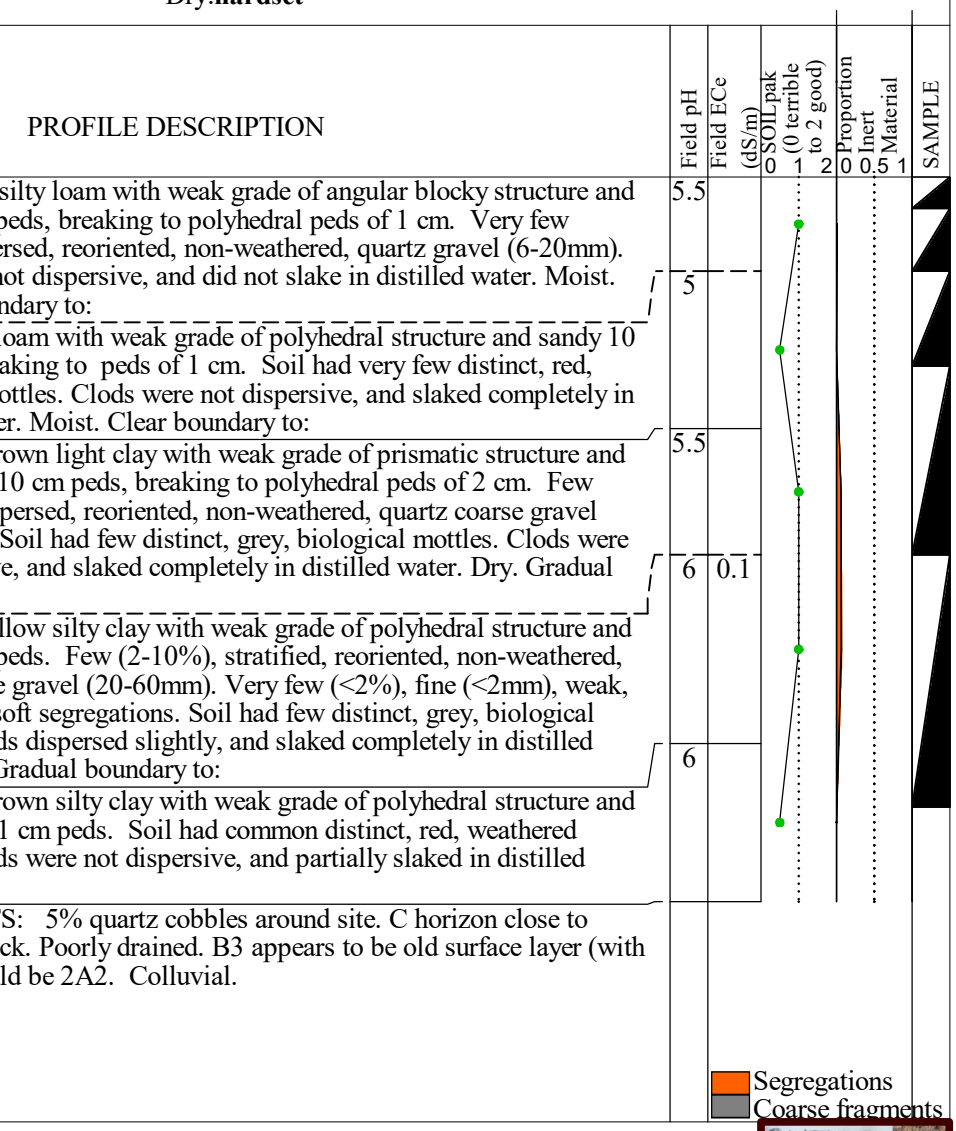
Mottled Mesotrophic Brown **Kandosol**

717325m E, 6295014m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Northeastern Aspect
Site Morphology:**Ridge**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown silty loam with weak grade of angular blocky structure and earthy 3 cm peds, breaking to polyhedral peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	5.5	
	A2e		Brown silty loam with weak grade of polyhedral structure and sandy 10 cm peds, breaking to peds of 1 cm. Soil had very few distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Clear boundary to:	5	
50	B2		Yellowish brown light clay with weak grade of prismatic structure and rough-faced 10 cm peds, breaking to polyhedral peds of 2 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5.5	
	B3		Brownish yellow silty clay with weak grade of polyhedral structure and earthy 2 cm peds. Few (2-10%), stratified, reoriented, non-weathered, quartz coarse gravel (20-60mm). Very few (<2%), fine (<2mm), weak, ferruginous soft segregations. Soil had few distinct, grey, biological mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
100	C		Yellowish brown silty clay with weak grade of polyhedral structure and rough-faced 1 cm peds. Soil had common distinct, red, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry.	6	
			COMMENTS: 5% quartz cobbles around site. C horizon close to weathered rock. Poorly drained. B3 appears to be old surface layer (with quartz) - could be 2A2. Colluvial.		



Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 115 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 772

Haplic Eutrophic Brown **Kandosol**

SSMID: OM772

717668m E, 6294476m N, (WGS 84),

Excavated on: **26/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Northern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark yellowish brown silty loam with weak grade of angular blocky structure and sandy 5 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	4.5	
	A2		Brown silty loam with weak grade of polyhedral structure and earthy 3 cm peds, breaking to peds of 1 cm. Soil had few faint, grey, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5.5	
	B1		Yellowish brown silty clay with weak grade of polyhedral structure and earthy 5 cm peds, breaking to peds of 1 cm. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	
50	B2		Yellowish brown silty clay with weak grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Soil had few distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	0.2
100	B3		Greyish brown silty clay loam with weak grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Very few (<2%), stratified, reoriented, non-weathered, quartz coarse gravel (20-60mm). Few (2-10%), coarse (6-20mm), weak, ferruginous nodules. Soil had very few distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	6	
			COMMENTS: Silty texture, weak structure throughout. Quartz (cobbles layer) at bottom of pit.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations:
equipment refusal at 120 cm
Rootzone:**70cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 773

SSMID: OM773

Excavated on: **26/03/2017** Logged by:**PJH**

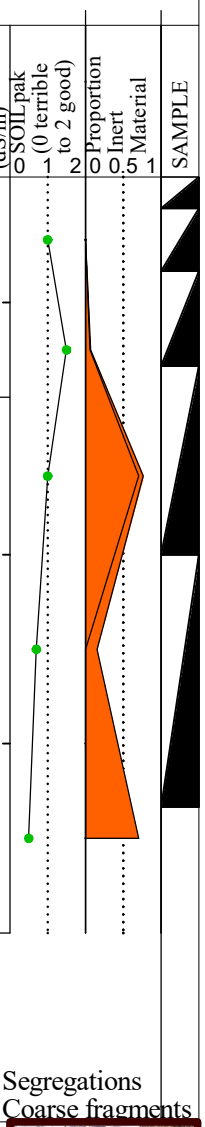
Manganic Eutrophic Brown **Kandosol**

716741m E, 6294308m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

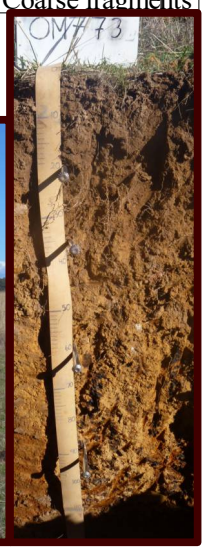
Topography
Slope:**4%** Northwestern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Very dark greyish brown silty loam with weak grade of subangular blocky structure and earthy 4 cm peds, breaking to peds of 1.3 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	5	
	A3		Dark yellowish brown silty clay loam with weak grade of polyhedral structure and earthy 4 cm peds, breaking to peds of 2 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Very few (<2%), medium (2-6mm), strong, ferruginous nodules. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	5.5	
	B1		Yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Abundant (50-90%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Few (2-10%), fine (<2mm), strong, ferruginous nodules. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	6	
50	B2		Yellowish brown light clay with weak grade of subangular blocky structure and rough-faced 5 cm peds. Common (10-20%), fine (<2mm), strong, ferromangiferous veins. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Dry. Diffuse boundary to:	6	0.1
	B3		Brownish yellow silty clay with weak grade of polyhedral structure and rough-faced 1 cm peds. Abundant (>50%), medium (2-6mm), weak, ferromangiferous veins. Clods were not dispersive, and partially slaked in distilled water. Dry.	6.5	
100			COMMENTS: All quartz sub-angular		



Lithology
Substrate:**colluvium**
Base of Observations: **Layer**
Continues at 120 cm
Rootzone:**60cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 774

SSMID: OM774

Excavated on: **27/03/2017** Logged by:**PJH**

Bleached-Mottled Mesotrophic Brown **Kandosol**

715410m E, 6295079m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, forb**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Northwestern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**2**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)	SOILpak (0 terrible to 2 good) 0 1 2	Proportion Inert Material 0 0.5 1	SAMPLE
	A1		Brown sandy loam with weak grade of subangular blocky structure and earthy 2 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5				
	A2e		Strong brown silty clay loam with weak grade of subangular blocky structure and earthy 2 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had very few faint, grey, biological mottles. Clods dispersed slightly, and partially slaked in distilled water. Moist. Gradual boundary to:	5.5				
50	B/C		Yellowish red silty clay with weak grade of subangular blocky structure and earthy 1 cm peds. Soil had very few faint, grey, biological mottles. Clods dispersed slightly, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	6	0.1			
	C		Yellowish red Abundant (50-90%), dispersed, undisturbed, strongly weathered, parent material stones (200-600mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist.	7				
100			COMMENTS: C is extremely weathered, extremely low strength, finely laminated slate.					

Segregations
Coarse fragments

Lithology
Substrate:**metamorphic**
Base of Observations:
equipment refusal at 80 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 775

Mottled Mesotrophic Grey **Dermosol**

SSMID: OM775

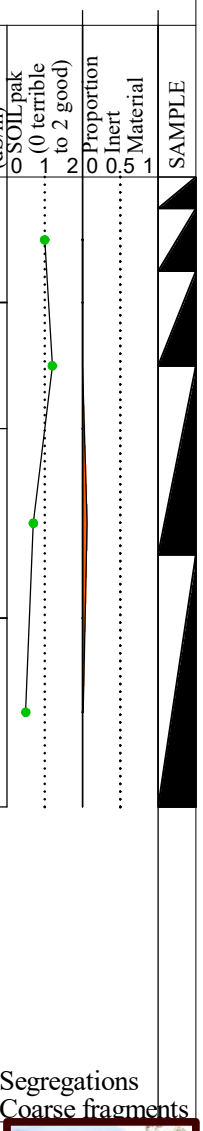
715119m E, 6295479m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**volunteer/native pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Southern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11	Brown silty clay loam with weak grade of subangular blocky structure and sandy 2 cm peds, breaking to peds of 1 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	A3	Greyish brown silty clay with weak grade of polyhedral structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Soil had few distinct, orange, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Moist. Gradual boundary to:	6	
50	B2	Greyish brown medium clay with strong grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Few (2-10%), coarse (6-20mm), weak, ferruginous nodules. Soil had many distinct, orange, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	6.5	0.1
	B3	Light brownish grey medium clay with strong grade of polyhedral structure and rough-faced 2 cm peds, breaking to peds of 1 cm. Very few (<2%), coarse (6-20mm), strong, ferruginous nodules. Soil had common distinct, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry.	6.5	
100		COMMENTS: Pin rushes common around pit		



Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 776

Haplic Eutrophic Brown **Dermosol**

SSMID: OM776

715796m E, 6295916m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**95%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Southwestern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown silty clay loam with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 1 cm. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5.5	
	A2	Light olive brown silty clay loam with weak grade of polyhedral structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B2	Light olive brown silty clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6	0.1
50	B3	Yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 1.5 cm peds. Few (2-10%), coarse (6-20mm), weak, ferruginous nodules. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.	6.5	
100		COMMENTS: Site receives run-on from hill to west.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer**
Continues at 100 cm
Rootzone:**50cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 777

Haplic Eutrophic Red **Dermosol**

SSMID: OM777

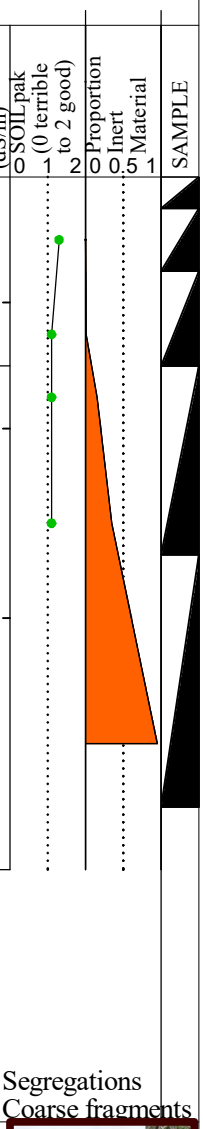
715466m E, 6294578m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass, forb**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Northeastern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Black silty clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds, breaking to peds of 2 cm. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	6	
	A2		Brown silty clay loam with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6	
	2A		Reddish brown light clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to subangular blocky peds of 0.5 cm. Common (10-20%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Clear boundary to:	6.5	
	2B		Reddish brown light clay with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to subangular blocky peds of 0.5 cm. Many (20-50%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6.5	0.1
50	2C		Yellowish red with strong grade of subangular blocky structure and rough-faced 0.5 cm peds. Very abundant (>90%), dispersed, undisturbed, strongly weathered, parent material boulders (>600mm). Clods were not dispersive, and slaked completely in distilled water. Dry.	6.5	
100			COMMENTS: First A horizon appears colluvial, Second has developed from underlying rock. C horizon is 20% strongly structured (SAB 0.5cm) red light clay & 80% strongly weathered, extremely low strength finely laminated metamorphic rock.		



Lithology
Substrate:**colluvial and metamorphic**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**60cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 778

SSMID: OM778

Excavated on: **27/03/2017** Logged by:**PJH**

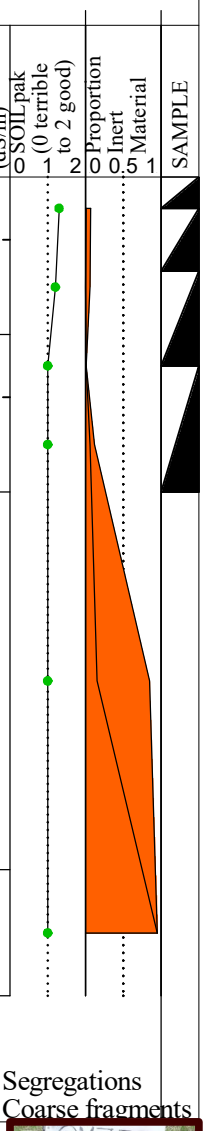
Bleached-Manganic Eutrophic Red **Chromosol**

716713m E, 6293555m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Southwestern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy loam with weak grade of subangular blocky structure and sandy 3 cm peds, breaking to peds of 1 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Few (2-10%), medium (2-6mm), strong, ferruginous nodules. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2e			6	
	B1		Brown fine sandy loam with weak grade of subangular blocky structure and sandy 2 cm peds, breaking to peds of 1 cm. Few (2-10%), medium (2-6mm), strong, ferruginous nodules. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	6.5	
	B2		Dark reddish brown clay loam with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 2 cm. Very few (<2%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	6.5	
50	C		Dark reddish brown light clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to peds of 0.5 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Few (2-10%), coarse (6-20mm), strong, ferruginous nodules. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	7.5	0.1
100			Brown light clay with moderate grade of subangular blocky structure and rough-faced 0.5 cm peds. Common (10-20%), dispersed, undisturbed, strongly weathered, parent material coarse gravel (20-60mm). Abundant (>50%), coarse (6-20mm), weak, ferromangiferous veins. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:		
	R		Light brown light clay Very abundant (>90%), dispersed, undisturbed, strongly weathered, parent material stones (200-600mm). Clods were not dispersive, and partially slaked in distilled water. Dry.	7.5	
			COMMENTS: Mini-chromosol. Rock is extremely weathered,		



Lithology
Substrate:**metamorphic**
Base of Observations:
bedrock reached at 130 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 778

Bleached-Manganic Eutrophic Red **Chromosol**

SSMID: OM778

716713m E, 6293555m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Southwestern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m) SOILpak (0 terrible to 2 good) 0 1 2	Proportion Inert Material 0 0.5 1	SAMPLE
200			extremely low strength finely laminated metamorphic rock. B1 contains tree roots from cleared trees. Upslope is flatter. Pin rushes common upslope.				
250							

Segregations
Coarse fragments

Lithology
Substrate:**metamorphic**
Base of Observations:
bedrock reached at 130 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 779

Mesotrophic Mottled-Subnatric Yellow **Sodosol**

SSMID: OM779

717486m E, 6293599m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**PJH**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**10%** Southern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Yellowish brown fine sandy loam with weak grade of angular blocky structure and earthy 5 cm peds. Soil had few faint, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moist. Abrupt boundary to:	6	
	A2e		Very pale brown fine sandy clay loam with weak grade of polyhedral structure and earthy 5 cm peds. Soil had few faint, orange, weathered mottles. Clods dispersed slightly, and slaked completely in distilled water. Dry. Clear boundary to:	6	
50	B1		Brownish yellow medium clay with moderate grade of prismatic structure and rough-faced 5 cm peds. Soil had many distinct, grey, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Dry. Clear boundary to:	6	
	B22		Brownish yellow medium clay with moderate grade of prismatic structure and rough-faced 5 cm peds. Few (2-10%), medium (2-6mm), weak, ferruginous soft segregations. Soil had common distinct, grey, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6	0.1
100	B23		Pale brown medium clay with moderate grade of prismatic structure and rough-faced 3 cm peds. Soil had common distinct, orange, weathered mottles. Clods dispersed strongly, and slaked completely in distilled water. Moderately moist.	7	
			COMMENTS: Deep topsoil, but common waterlogging indicated by 30 cm deep bleached A2 and strong dispersion in A2 and all 3 B horizons.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer**
Continues at 120 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 780

SSMID: OM780

Mottled Mesotrophic Brown **Chromosol**

Excavated on: **27/03/2017** Logged by:**PJH**

718031m E, 6293586m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**tussock grass, sod grass**
Site Disturbance:**extensive clearing**
Land Use:**volunteer/native pasture** Groundcover:**70%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Southeastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy loam with weak grade of subangular blocky structure and earthy 5 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Yellowish red sandy clay loam with weak grade of polyhedral structure and earthy 5 cm peds. Soil had very few faint, grey, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Clear boundary to:	5.5	
50	B1		Yellowish red light clay with weak grade of prismatic structure and earthy 7 cm peds. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had few faint, yellow, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	6	
	B2		Strong brown light clay with moderate grade of polyhedral structure and rough-faced 10 cm peds, breaking to subangular blocky peds of 2 cm. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	5.5	0.1
100	B3		Brown light medium clay with moderate grade of polyhedral structure and rough-faced 5 cm peds. Many (20-50%), stratified, reoriented, non-weathered, quartz cobbles (60-200mm). Soil had common distinct, orange, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Wet.	5	
			COMMENTS: Soil at bottom of pit is saturated (from 100cm). Pin rushes common around pit. Suspect that groundwater discharges into soil around this pit.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer**
Continues at 130 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 781

SSMID: OM781

Excavated on: **26/03/2017** Logged by:**GK**

Bleached-Manganic Eutrophic Brown **Dermosol**

717138m E, 6294132m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**95%**
Surface Condition Wet: Dry:**firm**

Topography
Slope:**5%** Northeastern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown silty loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	9	
	A2e		Brown silty loam with weak grade of polyhedral structure and earthy 1 cm peds. Clods dispersed slightly, and did not slake in distilled water. Moderately moist. Clear boundary to:	9	
	B1		Brown silty clay loam with moderate grade of columnar structure and earthy 3 cm peds, breaking to polyhedral peds of 2 cm. Many (20-50%), coarse (6-20mm), weak, manganiferous nodules. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	9	1.7
50	B22		Brown silty clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 2 cm. Few (2-10%), medium (2-6mm), weak, manganiferous nodules. Clods were moderately dispersive, and slaked completely in distilled water. Moderately moist. Diffuse boundary to:	9	0.8
	B23		Yellowish brown medium clay with moderate grade of prismatic structure and rough-faced 4 cm peds, breaking to angular blocky peds of 2 cm. Soil had common prominent, grey, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moist.	8.5	0.4
100					
150			COMMENTS: Limitations: Dispersive, alkaline, suspect low fertility, poor drainage. Suspect that saline groundwater discharges into rootzone around this pit.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**colluvium**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**75cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 782

SSMID: OM782

Excavated on: **27/03/2017** Logged by:**GK**

Manganic Mesotrophic Brown **Chromosol**

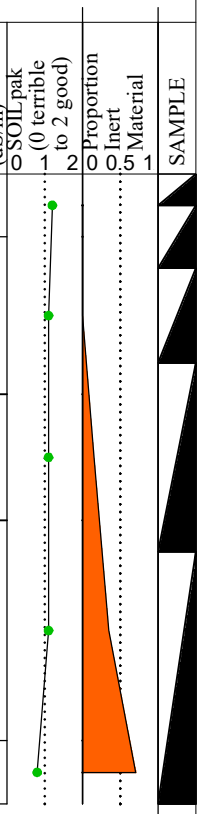
716320m E, 6294330m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B21		Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	5.5	0.1
50	B22		Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), medium (2-6mm), strong, manganiferous concretions. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	6	0.1
	B23		Dark yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), strong, ferromangiferous concretions. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	6.5	
100	C		Brown light clay with weak grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Dry.	7	

COMMENTS: Site of abandoned olive grove. Slope increases greatly downslope of pit.



Lithology
Substrate:**Colluvium**
Base of Observations:
equipment refusal at 100 cm
Rootzone:**80cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 783

SSMID: OM783

Excavated on: **27/03/2017** Logged by:**GK**

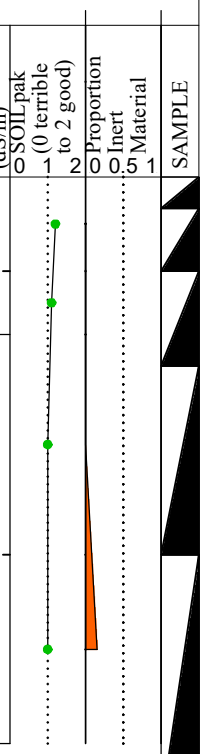
Haplic Mesotrophic Brown **Chromosol**

715043m E, 6295029m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Northwestern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5.5	
	B21		Strong brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	6	0.1
50					
	B22		Strong brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Common (10-20%), medium (2-6mm), weak, ferruginous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moist.	6.5	
			COMMENTS: Refusal in ferromanganiferous nodules.		
100					



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 90 cm
Rootzone:**60cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 784

SSMID: OM784

Excavated on: **27/03/2017** Logged by:**GK**

Haplic Mesotrophic Brown **Chromosol**

715488m E, 6295930m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Northwestern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Brown fine sandy clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moist. Clear boundary to:	5	
	B21		Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	5.5	0
50					
	B22		Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and slaked completely in distilled water. Moist.	6	0
100			COMMENTS: Small area of large quartz cobbles 20 m from site. Quartz fragments angular.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**100cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 785

SSMID: OM785

Excavated on: **27/03/2017** Logged by:**GK**

Manganic Mesotrophic Brown **Chromosol**

715617m E, 6295323m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**10%** Eastern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Many (20-50%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B2	Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 5 cm peds. Common (10-20%), coarse (6-20mm), strong, ferromangiferous concretions. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	6.5	
50	B3	Strong brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), strong, ferromangiferous concretions. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Clear boundary to:	7	0.1
	C	Brown fine sandy loam with weak grade of subangular blocky structure and earthy 2 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous nodules. Dry.		
100		COMMENTS: Physical restriction at 60 cm. Some quartz in topsoil.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Soil Continues** at 70 cm
Rootzone:**60cm**
BSAL Drainage: **Imperfectly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 786

Manganic Eutrophic Red **Chromosol**

SSMID: OM786

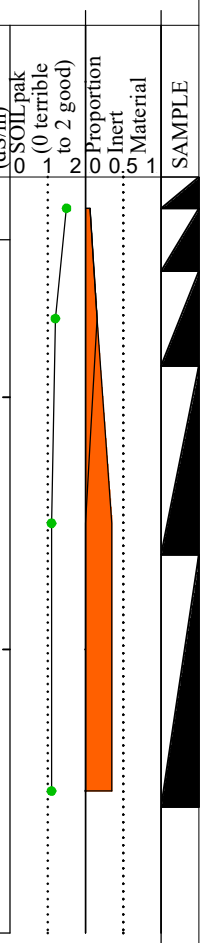
716537m E, 6293841m N, (WGS 84),

Excavated on: **27/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**firm**

Topography
Slope:**1%** Flat Aspect
Site Morphology:**Ridge**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A	Dark reddish brown clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz coarse gravel (20-60mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B21	Reddish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B31	Reddish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moist. Diffuse boundary to:	6	
50				
	B32	Yellowish red light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moist.	6.5	0.1
100				
		COMMENTS: Ridge crest.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 120 cm
Rootzone:**75cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 787

SSMID: OM787

Excavated on: **27/03/2017** Logged by:**GK**

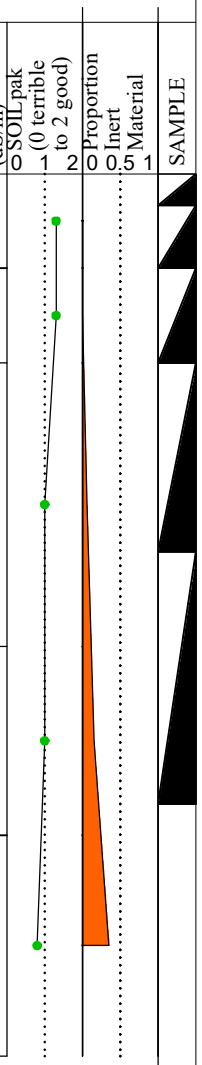
Manganic Mesotrophic Brown **Dermosol**

717047m E, 6293688m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown silty loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	4.5	
	A2		Brown silty loam with weak grade of subangular blocky structure and earthy 2 cm peds. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
50	B1		Yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Few (2-10%), medium (2-6mm), weak, ferruginous soft segregations. Soil had many distinct, pale, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	5	
100	2A		Yellowish brown silty clay loam with moderate grade of polyhedral structure and rough-faced 3 cm peds. Common (10-20%), coarse (6-20mm), weak, ferruginous soft segregations. Soil had few distinct, pale, biological mottles. Clods dispersed slightly, and slaked completely in distilled water. Moist. Gradual boundary to:	5.5	
	2B		Dark yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Many (20-50%), coarse (6-20mm), weak, ferruginous soft segregations. Soil had many prominent, pale, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Moist.	5.5	0.1
			COMMENTS: Many large earthworms.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**70cm**
BSAL Drainage: **Imperfectly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 788

SSMID: OM788

Excavated on: **27/03/2017** Logged by:**GK**

Acidic-Mottled Magnesic Brown **Dermosol**

717940m E, 6293923m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Western Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Dark yellowish brown silty loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5	
50	B11		Yellowish brown silty clay loam with moderate grade of polyhedral structure and rough-faced 3 cm peds. Soil had common faint, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5.5	0.1
	B12		Dark yellowish brown light clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Soil had common distinct, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	5.5	0
100	B21		Dark yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Soil had common distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Diffuse boundary to:	5.5	0.1
	B22		Yellowish brown medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Soil had common prominent, grey, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist.	5	0.1
			COMMENTS: Pin rushes around site.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 789

SSMID: OM789

Excavated on: **28/03/2017** Logged by:**GK**

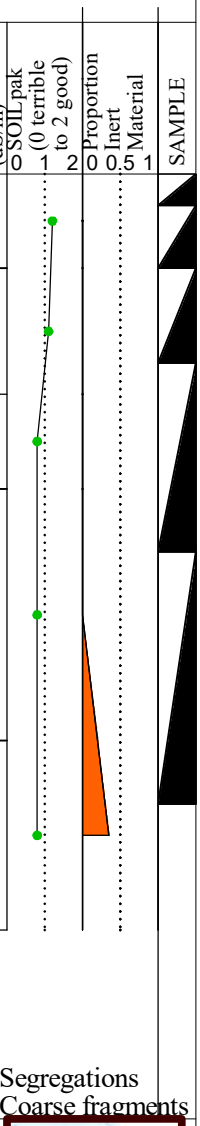
Acidic-Mottled Eutrophic Brown **Dermosol**

717762m E, 6293147m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**cleared no cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2		Brown fine clay loam with weak grade of polyhedral structure and earthy 2 cm peds. Soil had common faint, orange, weathered mottles. Clods were moderately dispersive, and slaked completely in distilled water. Moist. Clear boundary to:	5.5	
	B21		Yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Soil had common distinct, pale, weathered mottles. Clods	5	
50	B22		dispersed slightly, and slaked completely in distilled water. Moist. Clear boundary to: Yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Soil had common distinct, grey, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	5	0
100	B3		Yellowish brown light medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Many (20-50%), dispersed, reoriented, weakly weathered, quartz coarse gravel (20-60mm). Soil had common prominent, grey, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist.	5	0
			COMMENTS: Some pin rushes around site.		



Lithology
Substrate:**Colluvium**
Base of Observations: **layer Continues** at 120 cm
Rootzone:**40cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 790

Manganic Magnesic Red **Chromosol**

SSMID: OM790

717695m E, 6292672m N, (WGS 84),

Excavated on: **28/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**cleared no cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Western Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A11		Dark brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 0.5 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5	
	A12			5.5	
	B21		Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 0.5 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	6.5	
50			Brown light medium clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Common (10-20%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Diffuse boundary to:	7	0
	B22		Dark yellowish brown light medium clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Many (20-50%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and partially slaked in distilled water. Moderately moist.		
100					
			COMMENTS: Saffron thistle present, indicating good drainage.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**80cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 791

SSMID: OM791

Excavated on: **28/03/2017** Logged by:**GK**

Manganic-Acidic Mesotrophic Brown **Dermosol**

717204m E, 6292688m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**limited clearing**
Land Use:**volunteer/native pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Southeastern Aspect
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A	Dark brown fine sandy clay loam with weak grade of polyhedral structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B21	Dark yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Diffuse boundary to:	4.5	
50	B22	Yellowish brown light clay with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moist. Clear boundary to:	4.5	
	B3	Light yellowish brown silty clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), coarse (6-20mm), weak, ferruginous soft segregations. Clods dispersed slightly, and partially slaked in distilled water. Moist. Gradual boundary to:	5	
100	C	Dark yellowish brown light medium clay with moderate grade of angular blocky structure and rough-faced 2 cm peds. Many (20-50%), very coarse (20-60mm), weak, ferruginous soft segregations. Soil had common prominent, pale, biological mottles. Clods dispersed strongly, and partially slaked in distilled water. Moist.	5	0
		COMMENTS: Common, continuous vertical macropores in B3		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**75cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 792

Bleached Eutrophic Brown **Chromosol**

SSMID: OM792

717273m E, 6293172m N, (WGS 84),

Excavated on: **28/03/2017** Logged by:**GK**

Topography
Slope:**5%** Northeastern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**70%**
Surface Condition Wet:**firm** Dry:**hardset**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	4.5	
	A2e	Brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B2	Yellowish brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds. Clods were not dispersive, and slaked completely in distilled water. Moist. Diffuse boundary to:	6	
50				
	B31	Light yellowish brown silty clay loam with moderate grade of subangular blocky structure and rough-faced 3 cm peds. Common (10-20%), coarse (6-20mm), weak, ferruginous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	6	
100				
	B32	Dark yellowish brown medium clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Soil had common prominent, grey, weathered mottles. Clods dispersed slightly, and did not slake in distilled water. Moist.	6.5	0.1
		COMMENTS: 0		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 140 cm
Rootzone:**75cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 793

Manganic Eutrophic Red **Chromosol**

SSMID: OM793

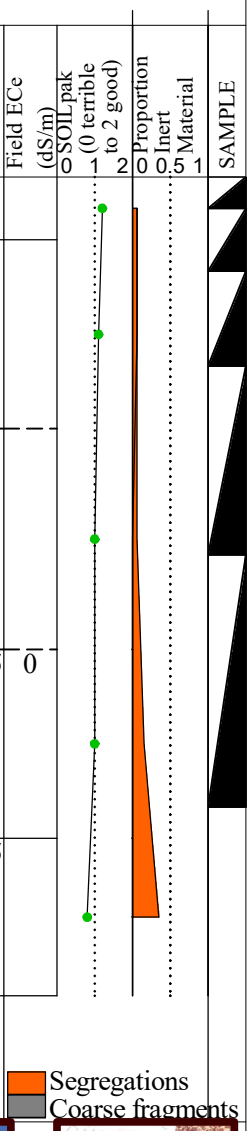
716556m E, 6293206m N, (WGS 84),

Excavated on: **28/03/2017** Logged by:**GK**

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**extensive clearing**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Northern Aspect
Site Morphology:**Upper Slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark reddish brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz coarse gravel (20-60mm). Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B21		Yellowish red light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Few (2-10%), dispersed, reoriented, weakly weathered, quartz gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	6	
50	B22		Yellowish red light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Few (2-10%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and partially slaked in distilled water. Moist. Diffuse boundary to:	7	
	B3		Strong brown light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Common (10-20%), coarse (6-20mm), weak, manganiferous soft segregations. Clods were not dispersive, and partially slaked in distilled water. Moist. Diffuse boundary to:	7.5	0
100	C		Strong brown light clay with weak grade of subangular blocky structure and rough-faced 1 cm peds. Many (20-50%), very coarse (20-60mm), weak, manganiferous soft segregations. Soil had many distinct, pale, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist.	6.5	
			COMMENTS: Soil has good structure, but many manganiferous segregations 105+		



Lithology
Substrate:**Colluvium**
Base of Observations: **Soil Continues** at 130 cm
Rootzone:**70cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 794

SSMID: OM794

Excavated on: **28/03/2017** Logged by:**GK**

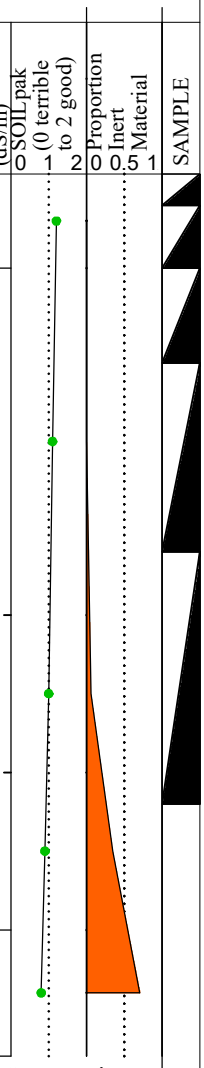
Manganic Mesotrophic Red **Chromosol**

716656m E, 6292865m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**80%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**1%** Flat Aspect
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Dark reddish brown fine sandy clay loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	B21		Yellowish red light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Gradual boundary to:	6.5	
50	B22		Yellowish red light medium clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Few (2-10%), medium (2-6mm), weak, ferromangiferous soft segregations. Clods were not dispersive, and slaked completely in distilled water. Moist. Gradual boundary to:	7	
100	B3		Yellowish red light clay with moderate grade of subangular blocky structure and rough-faced 2 cm peds. Many (20-50%), coarse (6-20mm), strong, ferromangiferous nodules. Clods were not dispersive, and partially slaked in distilled water. Moist. Gradual boundary to:	6.5	0
	C		Reddish brown light clay with moderate grade of subangular blocky structure and rough-faced 1 cm peds. Abundant (>50%), very coarse (20-60mm), strong, ferromangiferous nodules. Clods were not dispersive, and slaked completely in distilled water. Moist.	5.5	
			COMMENTS: Good structure, similar to OM793		



Lithology
Substrate:**Colluvium**
Base of Observations: **Soil Continues** at 140 cm
Rootzone:**70cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 795

SSMID: OM795

Excavated on: **28/03/2017** Logged by:**GK**

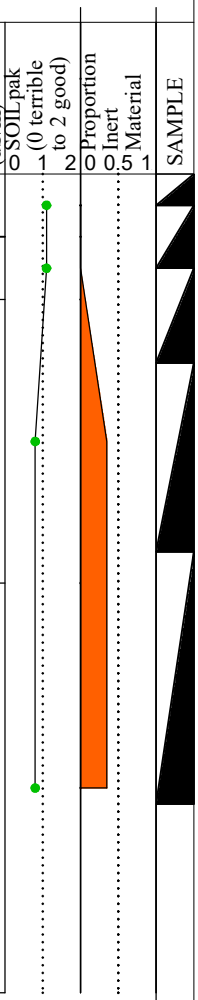
Bleached-Manganic Eutrophic Brown **Chromosol**

716080m E, 6293284m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**sod grass, tussock grass**
Site Disturbance:**cleared no cultivation**
Land Use:**improved pasture** Groundcover:**90%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Northwestern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark greyish brown silty loam with weak grade of subangular blocky structure and earthy 1 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5	
	A2e		Brown silty loam with weak grade of subangular blocky structure and earthy 2 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	5.5	
	B		Yellowish brown light medium clay with weak grade of columnar structure and rough-faced 3 cm peds, breaking to polyhedral peds of 2 cm. Many (20-50%), coarse (6-20mm), weak, ferromangiferous soft segregations. Soil had common distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist. Diffuse boundary to:	6.5	0
50					
	C		Greyish brown silty clay with moderate grade of lenticular structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 2 cm. Many (20-50%), coarse (6-20mm), strong, ferromangiferous soft segregations. Soil had common distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moist.	7	0.1
100					
			COMMENTS: Roots in subsoil growing down earthworm macropores.		



Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 130 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 796

SSMID: OM796

Excavated on: **28/03/2017** Logged by:**PJH**

Manganic Eutrophic Brown **Chromosol**

715977m E, 6292927m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**woodland grass understory**
Growth Form:**sod grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**100%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Northwestern Aspect
Site Morphology:**Lower slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Dark brown loam with weak grade of subangular blocky structure and earthy 3 cm peds. Clods were not dispersive, and did not slake in distilled water. Moist. Clear boundary to:	4.5	
	A2		Brown silty loam with weak grade of polyhedral structure and earthy 3 cm peds. Clods were not dispersive, and partially slaked in distilled water. Moist. Abrupt boundary to:	5.5	
50	B2		Yellowish brown light medium clay with moderate grade of polyhedral structure and rough-faced 3 cm peds, breaking to peds of 1 cm. Few (2-10%), coarse (6-20mm), strong, ferruginous nodules. Soil had very few faint, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	6.5	0.1
100	B3		Light grey loam with massive grade of structure. Abundant (>50%), very coarse (20-60mm), weak, ferruginous veins. Clods were not dispersive, and slaked completely in distilled water. Dry.	7.5	
			COMMENTS: Poorly drained site.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations

Coarse fragments

Lithology
Substrate:**Colluvium**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**55cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 838

SSMID: OM838

Excavated on: **23/07/2018** Logged by:**PJH**

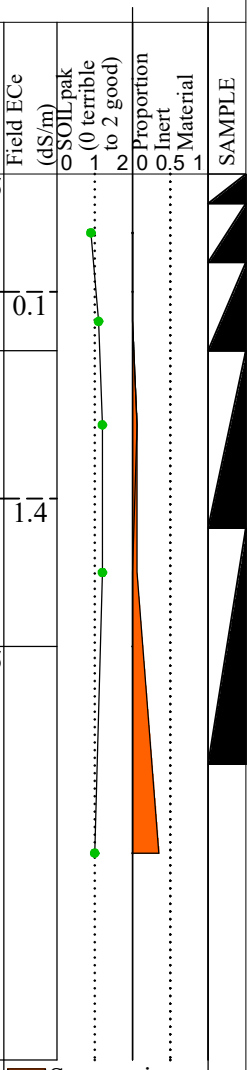
Manganic Eutrophic Brown **Dermosol**

716274m E, 6296877m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**60%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Western Aspect
Site Morphology:**Crest**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine silty loam with weak grade of polyhedral structure and rough-faced 3 cm peds, breaking to polyhedral peds of 1 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	4.5	
	A3	Brown fine silty clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to subangular blocky peds of 0.5 cm. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	5	0.1
	B1	Yellowish brown fine clay loam with strong grade of polyhedral structure and rough-faced 5 cm peds, breaking to subangular blocky peds of 0.5 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5	
50	B2	Brown fine clay loam with moderate grade of polyhedral structure and rough-faced 10 cm peds, breaking to subangular blocky peds of 0.5 cm. Few (2-10%), medium (2-6mm), strong, ferruginous nodules. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5	1.4
	C	Brown fine silty clay loam with strong grade of polyhedral structure and rough-faced 4 cm peds, breaking to polyhedral peds of 1 cm. Many (20-50%), coarse (6-20mm), weak, ferromangiferous soft segregations. Soil had common brown, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5.5	
100				
150		COMMENTS: Looks OK for pasture.		



Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**70cm**
BSAL Drainage: **Imperfectly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 839

SSMID: OM839

Excavated on: **23/07/2018** Logged by:**PJH**

Bleached Eutrophic Brown **Chromosol**

716268m E, 6296550m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**40%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine sandy loam with weak grade of subangular blocky structure and sandy 2 cm peds, breaking to polyhedral peds of 0.2 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
	A2e			4.5	
	B2		Brown fine sandy loam with weak grade of polyhedral structure and sandy 5 cm peds, breaking to subangular blocky peds of 1 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Abrupt boundary to:	4.5	0.1
50			Yellowish brown light clay with strong grade of polyhedral structure and rough-faced 3 cm peds, breaking to polyhedral peds of 0.5 cm. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:		
	B23		Pale brown light clay with strong grade of polyhedral structure and rough-faced 10 cm peds, breaking to polyhedral peds of 2 cm. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Diffuse boundary to:	5.5	0.1
100					
	B32		Grey light clay with strong grade of polyhedral structure and rough-faced 10 cm peds, breaking to polyhedral peds of 3 cm. Soil had common distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.	5.5	
150			COMMENTS: Froth structure (vesicles) to bottom of pit. Reasonable pasture soil.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 840

SSMID: OM840

Excavated on: **23/07/2018** Logged by:**PJH**

Bleached-Acidic Eutrophic Yellow **Dermosol**

716719m E, 6296745m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**50%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Southern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**5**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine silty loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to subangular blocky peds of 0.5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	4.5	
	A2e		4.5	0.1
	B	Pale brown coarse silty loam with moderate grade of polyhedral structure and rough-faced 2 cm peds, breaking to polyhedral peds of 0.5 cm. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Gradual boundary to:	4.5	0.1
50	C	Light brown coarse sandy clay loam with moderate grade of polyhedral structure and rough-faced 5 cm peds, breaking to polyhedral peds of 0.5 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had few distinct, red, weathered mottles. Clods dispersed slightly, and partially slaked in distilled water. Dry. Gradual boundary to:	4.5	
100		Pale red coarse sandy loam with moderate grade of polyhedral structure and rough-faced 1 cm peds, breaking to polyhedral peds of 0.5 cm. Abundant (50-90%), stratified, undisturbed, strongly weathered, parent material cobbles (60-200mm). Clods dispersed slightly, and partially slaked in distilled water. Dry.		
150		COMMENTS: Vesicular porosity in B.		

SOILpak (0 terrible to 2 good) 0 1 2

Proportion Inert Material 0 0.5 1

SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**granite**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 841

SSMID: OM841

Excavated on: **23/07/2018** Logged by:**PJH**

Bleached-Acidic Mesotrophic Brown **Dermosol**

716966m E, 6296480m N, (WGS 84),

Landscape Properties
Landform Element:**valley flat**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**voluntary/native pasture** Groundcover:**10%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Southern Aspect
Site Morphology:**Open Depression**
Slope Morphology:**Waning**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine silty loam with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to subangular blocky peds of 0.5 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
	A2e		5	0.1
	A3	Brown fine silty loam with strong grade of polyhedral structure and rough-faced 3 cm peds, breaking to subangular blocky peds of 0.5 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Moderately moist. Clear boundary to:	5	
	B	Pale brown fine silty clay loam with strong grade of polyhedral structure and rough-faced 4 cm peds, breaking to polyhedral peds of 0.5 cm. Soil had few faint, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	4.5	0
50				
	C	Yellowish brown fine silty clay with strong grade of polyhedral structure and rough-faced 10 cm peds, breaking to polyhedral peds of 1 cm. Few (2-10%), coarse (6-20mm), weak, ferruginous soft segregations. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	4.5	
100		Yellowish brown fine light clay with weak grade of polyhedral structure and rough-faced 1 cm peds, breaking to polyhedral peds of 0.5 cm. Many (20-50%), very coarse (20-60mm), weak, ferruginous nodules. Soil had many distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.		
150		COMMENTS: Qtz cobbles common on nearby hills. Pinrushes common. Vesicular structure in A3.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 842

Bleached Magnesic Yellow **Kurosol**

SSMID: OM842

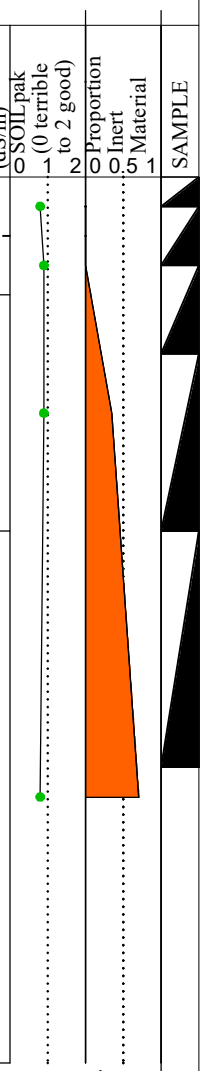
717371m E, 6296173m N, (WGS 84),

Excavated on: **23/07/2018** Logged by:**PJH**

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**woodland grass understory**
Growth Form:**tussock grass**
Site Disturbance:**extensive clearing**
Land Use:**voluntary/native pasture** Groundcover:**20%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**7%** Northern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Brown fine silty clay loam with moderate grade of subangular blocky structure and rough-faced 5 cm peds, breaking to polyhedral peds of 0.2 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	5	
	A2e		5	
	B	Reddish yellow fine silty clay loam with moderate grade of subangular blocky structure and rough-faced 2 cm peds, breaking to polyhedral peds of 0.2 cm. Soil had few faint, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	4.5	
50		Reddish yellow silty clay with strong grade of subangular blocky structure and smooth-faced 1 cm peds, breaking to polyhedral peds of 0.5 cm. Many (20-50%), dispersed, undisturbed, strongly weathered, parent material coarse gravel (20-60mm). Soil had few distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:		
	C	Yellowish brown silty clay with strong grade of subangular blocky structure and smooth-faced 0.5 cm peds, breaking to subangular blocky peds of 0.5 cm. Abundant (50-90%), dispersed, undisturbed, strongly weathered, parent material cobbles (60-200mm). Soil had very few distinct, red, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	5	
100				
150		COMMENTS: 10% Qtz cobbles on surface. Pinrushes commom.		



Lithology
Substrate:**Slate**
Base of Observations: **Layer Continues** at 150 cm
Rootzone:**50cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 843

SSMID: OM843

Excavated on: **23/07/2018** Logged by:**PJH**

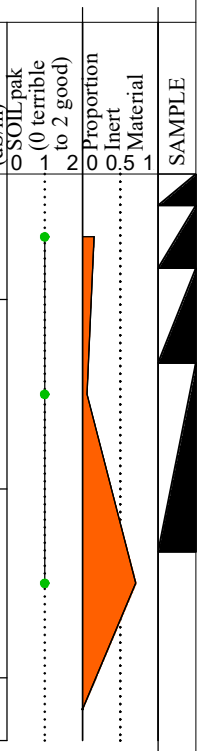
Haplic Mesotrophic Brown **Kurosol**

717479m E, 6296669m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**10%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Northern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A		Brown coarse sandy loam with moderate grade of subangular blocky structure and rough-faced 4 cm peds, breaking to polyhedral peds of 0.5 cm. Common (10-20%), stratified, reoriented, non-weathered, quartz cobbles (60-200mm). Clods were not dispersive, and did not slake in distilled water. Moderately moist. Gradual boundary to:	5.5	
	B		Dark yellowish brown light clay with strong grade of polyhedral structure and rough-faced 2 cm peds, breaking to polyhedral peds of 0.5 cm. Few (2-10%), dispersed, undisturbed, strongly weathered, parent material gravel (6-20mm). Clods were not dispersive, and did not slake in distilled water. Dry. Gradual boundary to:	4.5	
50	C		Dark yellowish brown light clay with strong grade of polyhedral structure and rough-faced 1 cm peds, breaking to polyhedral peds of 0.5 cm. Abundant (50-90%), stratified, undisturbed, strongly weathered, parent material cobbles (60-200mm). Soil had few distinct, red, weathered mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Diffuse boundary to:	4	
	R		Dry.		
100			COMMENTS: R is XW EL vertically oriented slate. 10% Qtz cobbles on surface.		



Lithology
Substrate:**Slate**
Base of Observations: **Layer Continues** at 90 cm
Rootzone:**50cm**
BSAL Drainage: **Moderately well drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 947

SSMID: OM947

Excavated on: **29/01/2019** Logged by:**PJH**

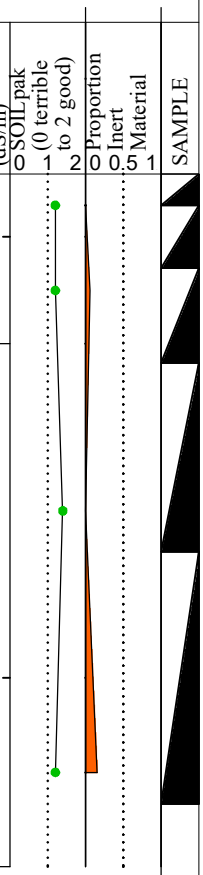
Manganic Eutrophic Brown **Dermosol**

715972m E, 6296600m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**30%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**6%** Western Aspect
Site Morphology:**Midslope**
Slope Morphology:**Maximal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine silty loam with moderate grade of angular blocky structure and rough-faced 30 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	4.5	
	A2		Brown fine silty clay loam with moderate grade of lenticular structure and earthy 30 cm peds, breaking to subangular blocky peds of 5 cm. Few (2-10%), medium (2-6mm), strong, ferromangiferous nodules. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	4.5	
	B1		Strong brown silty clay with strong grade of prismatic structure and earthy 50 cm peds, breaking to subangular blocky peds of 15 cm. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Diffuse boundary to:	4.5	
50					
	B2		Yellowish brown silty clay with strong grade of polyhedral structure and smooth-faced 20 cm peds, breaking to polyhedral peds of 2 cm. Common (10-20%), coarse (6-20mm), weak, ferromangiferous nodules. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Moderately moist.	4.5	
100					
			COMMENTS: Should be productive pasture soil. Phalaris common.		



Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**90cm**
BSAL Drainage: **Moderately well drained**
Moderately permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 948

SSMID: OM948

Excavated on: **29/01/2019** Logged by:**PJH**

Bleached Eutrophic Brown **Dermosol**

715485m E, 6296699m N, (WGS 84),

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**20%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**9%** Northeastern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**Normal gilgai** Depth:**= 500 mm** Extent:**> 50%**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark yellowish brown fine silty loam with moderate grade of subangular blocky structure and rough-faced 10 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
	A2		4.5	
	B1	Dark yellowish brown fine silty loam with weak grade of polyhedral structure and rough-faced 30 cm peds, breaking to polyhedral peds of 10 cm. Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and did not slake in distilled water. Dry. Abrupt boundary to:	5	
	B22	Strong brown fine silty clay loam with strong grade of polyhedral structure and rough-faced 50 cm peds, breaking to polyhedral peds of 5 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	5	
50				
	B23	Yellowish red light clay with strong grade of polyhedral structure and rough-faced 50 cm peds, breaking to polyhedral peds of 10 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5	
100		Strong brown light medium clay with strong grade of polyhedral structure and rough-faced 10 cm peds, breaking to angular blocky peds of 2 cm. Soil had few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.		

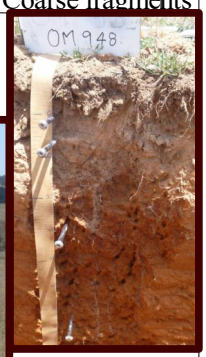
COMMENTS: Few saffron, phalaris, corkscrew grass??, pattersons curse. Much drier than 947. Gilgai 10 cm deep.

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Highly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 949

SSMID: OM949

Haplic Eutrophic Brown **Dermosol**

Excavated on: **29/01/2019** Logged by:**PJH**

715144m E, 6296577m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**20%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**4%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark grey fine silty clay loam with moderate grade of subangular blocky structure and rough-faced 30 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
	A2		4.5	
	B1	Reddish brown fine silty clay loam with weak grade of subangular blocky structure and rough-faced 50 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Dry. Abrupt boundary to:	5	
	B22	Yellowish red silty clay with moderate grade of polyhedral structure and rough-faced 30 cm peds, breaking to polyhedral peds of 10 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5	
50				
	B23	Yellowish red light clay with strong grade of polyhedral structure and rough-faced 50 cm peds, breaking to polyhedral peds of 10 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry. Gradual boundary to:	5	
100		Yellowish red light clay with strong grade of subangular blocky structure and rough-faced 10 cm peds, breaking to subangular blocky peds of 2 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Dry.		
		COMMENTS: Small flattish area, midslope. Corkscrew grass, phalaris, pattersons curse, skeleton weed?		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**80cm**
BSAL Drainage: **Poorly drained**
Moderately permeable





Sustainable Soils Management
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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 950

Bleached Eutrophic Red **Dermosol**

SSMID: OM950

715381m E, 6296272m N, (WGS 84),

Excavated on: **29/01/2019** Logged by:**PJH**

Landscape Properties
Landform Element:**hillcrest**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**20%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**8%** Southern Aspect
Site Morphology:**Upper slope**
Slope Morphology:**Waxing**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1	Dark yellowish brown fine silty loam with moderate grade of angular blocky structure and rough-faced 30 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
	A2		4.5	
	B1	Strong brown fine silty loam with moderate grade of angular blocky structure and rough-faced 10 cm peds, breaking to angular blocky peds of 2 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and did not slake in distilled water. Dry. Abrupt boundary to:	5.5	
50	B2	Yellowish red light clay with strong grade of polyhedral structure and rough-faced 30 cm peds, breaking to polyhedral peds of 5 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz fine gravel (2-6mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	6	
	B3	Yellowish red light clay with strong grade of polyhedral structure and rough-faced 30 cm peds, breaking to polyhedral peds of 2 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz coarse gravel (20-60mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and partially slaked in distilled water. Dry. Gradual boundary to:	5	
100		Yellowish red light clay with moderate grade of polyhedral structure and rough-faced 20 cm peds, breaking to polyhedral peds of 2 cm. Few (2-10%), dispersed, reoriented, non-weathered, quartz gravel (6-20mm). Soil had very few distinct, grey, biological mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.		
		COMMENTS: 3% Qtz boulders within 10 m of pit. Pattersons curse, phalaris, corkscrew.		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 110 cm
Rootzone:**70cm**
BSAL Drainage: **Poorly drained**
Slowly permeable





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BSAL Profile Description

McPhillamys Gold Project for Regis Resources Ltd

Detail Pit 951

SSMID: OM951

Excavated on: **29/01/2019** Logged by:**PJH**

Bleached Eutrophic Grey **Dermosol**

715741m E, 6296366m N, (WGS 84),

Landscape Properties
Landform Element:**hillslope**
Vegetation Community:**unknown**
Growth Form:**tussock grass**
Site Disturbance:**occasional cultivation**
Land Use:**improved pasture** Groundcover:**10%**
Surface Condition Wet:**firm** Dry:**hardset**

Topography
Slope:**5%** Northern Aspect
Site Morphology:**Midslope**
Slope Morphology:**Minimal**
Microrelief:**None**
Rock Outcrop:**0**

DEPTH (centimetres)	Horizon	GRAPHIC LOG	PROFILE DESCRIPTION	Field pH	Field ECe (dS/m)
	A1		Brown fine silty loam with moderate grade of subangular blocky structure and rough-faced 20 cm peds, breaking to subangular blocky peds of 5 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Clear boundary to:	4.5	
	A2		Light yellowish brown fine silty loam with moderate grade of subangular blocky structure and rough-faced 50 cm peds, breaking to angular blocky peds of 10 cm. Clods were not dispersive, and did not slake in distilled water. Moderately moist. Abrupt boundary to:	4.5	
50	B1		Dark yellowish brown light clay with strong grade of polyhedral structure and rough-faced 100 cm peds, breaking to polyhedral peds of 20 cm. Clods were not dispersive, and slaked completely in distilled water. Moderately moist. Gradual boundary to:	4.5	
	B2		Light brownish grey light clay with strong grade of polyhedral structure and rough-faced 50 cm peds, breaking to subangular blocky peds of 10 cm. Soil had few distinct, orange, weathered mottles. Clods were not dispersive, and slaked completely in distilled water. Moderately moist.	4.5	
100			COMMENTS: Unproductive soil		

SOILpak (0 terrible to 2 good): 0 1 2
Proportion Inert Material: 0 0.5 1
SAMPLE

Segregations
Coarse fragments

Lithology
Substrate:**not identified**
Base of Observations: **Layer Continues** at 100 cm
Rootzone:**60cm**
BSAL Drainage: **Poorly drained**
Very slowly permeable





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APPENDIX III:

Results of chemical analysis of soil samples conducted by Incitec Pivot Ltd Nutrient Advantage Laboratory Services

SOIL ANALYSIS REPORT

Report Number: 535949

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021706465	**Paddock Name:**	OM701, 0 to 5 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	240	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	2.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	160	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	27	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	86		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	8.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.50	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	15.7	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535949

Sample Number:	021706465	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.34	dS/m	04-031-PH	1:5 soil/water
Chloride	65	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.69	mg/kg	04-024-ICP6	DTPA
Manganese	42	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.31		04-020-ICP17	Calculated: Col P / PBI

The results pertain only to the sample submitted.
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Analyses performed on soil dried at 40 °C and ground to 2mm or less.

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SOIL ANALYSIS REPORT

Report Number: 535948

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760464	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.035		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	6.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.56	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	9.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	49		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535948

Sample Number:	021760464	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	7.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.0	mg/kg	04-024-ICP6	DTPA
Zinc	0.13	mg/kg	04-024-ICP6	DTPA
Manganese	11	mg/kg	04-024-ICP6	DTPA
Iron	43	mg/kg	04-024-ICP6	DTPA
Boron	0.14	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.10		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535947

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760463	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	19	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.31	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	15	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	8.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	26	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535947

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SOIL ANALYSIS REPORT

Report Number: 535946

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760462	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.51	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	16	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.93		04-026-ICP8	Calculation
pH (1:5 Water)	8.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535946

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SOIL ANALYSIS REPORT

Report Number: 535945

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760461	**Paddock Name:**	OM701	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	200	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	37	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.037		04-026-ICP8	Calculated
Magnesium % of Cations	47	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.51	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	6.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	7.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	16.5	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	14	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.79		04-026-ICP8	Calculation
pH (1:5 Water)	7.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	87	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535945

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SOIL ANALYSIS REPORT

Report Number: 520879

This report supersedes Report Number 520849

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760460	**Paddock Name:**	OM702 0-5	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	25-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	3			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	7.9	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.90	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	21	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	51		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.49	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	32	mg/kg	04-027-ICP9	
Aluminium	0.36	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520879

Sample Number:	021760460	**Paddock Name:**	OM702 0-5	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	25-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.29	mg/kg	04-024-ICP6	DTPA
Manganese	74	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.17	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	65.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	18.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520959

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760459	**Paddock Name:**	OM702 5-15	**Date Sampled:**	23-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.060		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.55	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	35	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	40		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.073	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.65	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520959

Sample Number:	021760459	**Paddock Name:**	OM702 5-15	**Date Sampled:**	23-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.18	mg/kg	04-024-ICP6	DTPA
Manganese	67	mg/kg	04-024-ICP6	DTPA
Iron	75	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	62.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	13.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520960

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760458	**Paddock Name:**	OM702 15-30	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	80	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.82	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.29	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	7.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	53.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	18.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	25.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520960

Sample Number:	021760458	**Paddock Name:**	OM702 15-30	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520961

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760457	**Paddock Name:**	OM702 30-60	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	98	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	31	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	7.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.57	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	7.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.22	dS/m	04-031-PH	1:5 soil/water
Chloride	44	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	8.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	48.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 520961

Sample Number:	021760457	**Paddock Name:**	OM702 30-60	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 520962

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760456	**Paddock Name:**	OM702 60-100	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	2			
2 hour remoulded aggregate	2			
20 hour natural aggregate	2			
20 hour remoulded aggregate	2			
Available Potassium	99	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.045		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	4.1	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	6.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	7.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	15.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	47.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	20.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520962

Sample Number:	021760456	**Paddock Name:**	OM702 60-100	**Date Sampled:**	23-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520963

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760455	**Paddock Name:**	OM703 0-5	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	510	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.37		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	26	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	2.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	71	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	21	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	17	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	60		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.91	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.088	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.19	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520963

Sample Number:	021760455	**Paddock Name:**	OM703 0-5	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.31	dS/m	04-031-PH	1:5 soil/water
Chloride	130	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.9	mg/kg	04-024-ICP6	DTPA
Zinc	3.5	mg/kg	04-024-ICP6	DTPA
Manganese	190	mg/kg	04-024-ICP6	DTPA
Iron	210	mg/kg	04-024-ICP6	DTPA
Boron	0.45	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	8.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	60.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	18.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520964

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760454	**Paddock Name:**	OM703 5-15	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	310	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.23		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	18	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.85	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	5.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	45		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.79	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.045	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.25	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520964

Sample Number:	021760454	**Paddock Name:**	OM703 5-15	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	20	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.70	mg/kg	04-024-ICP6	DTPA
Manganese	76	mg/kg	04-024-ICP6	DTPA
Iron	67	mg/kg	04-024-ICP6	DTPA
Boron	0.41	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	65.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	13.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	18.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520965

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760453	**Paddock Name:**	OM703 15-30	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	1			
20 hour natural aggregate	0			
20 hour remoulded aggregate	1			
Available Potassium	260	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.66	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.95	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	51.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	15.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	32.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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Report Number: 520965

Sample Number:	021760453	**Paddock Name:**	OM703 15-30	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520966

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760452	**Paddock Name:**	OM703 30-60	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.050		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	4.7	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.00	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	41.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	13.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	43.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 520966

Sample Number:	021760452	**Paddock Name:**	OM703 30-60	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520967

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760451	**Paddock Name:**	OM703 60-100	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	4.3	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.95	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	36.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	16.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	46.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520967

Sample Number:	021760451	**Paddock Name:**	OM703 60-100	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520968

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751211	**Paddock Name:**	OM704 0-5	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.10		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	9.3	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	27	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	46		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.82	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.056	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.01	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520968

Sample Number:	021751211	**Paddock Name:**	OM704 0-5	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.84	mg/kg	04-024-ICP6	DTPA
Zinc	0.65	mg/kg	04-024-ICP6	DTPA
Manganese	40	mg/kg	04-024-ICP6	DTPA
Iron	180	mg/kg	04-024-ICP6	DTPA
Boron	0.25	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	62.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520969

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751256	**Paddock Name:**	OM704 5-15	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.18		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	14	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.70	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	34		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.053	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.7	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520969

Sample Number:	021751256	**Paddock Name:**	OM704 5-15	**Date Sampled:**	21-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.90	mg/kg	04-024-ICP6	DTPA
Zinc	0.19	mg/kg	04-024-ICP6	DTPA
Manganese	37	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.12	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	61.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520970

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751257	**Paddock Name:**	OM704 15-30	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	77	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	4.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.42	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	51.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520970

Sample Number:	021751257	**Paddock Name:**	OM704 15-30	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520985

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751258	**Paddock Name:**	OM704 30-60	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	74	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.5	mg/kg	04-027-ICP9	
Aluminium	0.11	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.05	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.5	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	43.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	33.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 520985

Sample Number:	021751258	**Paddock Name:**	OM704 30-60	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520986

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751259	**Paddock Name:**	OM704 60-100	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	55	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.77	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	8.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	46.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	18.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520986

Sample Number:	021751259	**Paddock Name:**	OM704 60-100	**Date Sampled:**	21-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521218

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751264	**Paddock Name:**	OM705 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	320	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.20		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	16	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	88	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	20	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	39		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.82	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.17	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521218

Sample Number:	021751264	**Paddock Name:**	OM705 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.20	dS/m	04-031-PH	1:5 soil/water
Chloride	26	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.89	mg/kg	04-024-ICP6	DTPA
Zinc	1.3	mg/kg	04-024-ICP6	DTPA
Manganese	56	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.50	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521217

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751263	**Paddock Name:**	OM705 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.076		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	6.8	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.81	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	36		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.74	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.032	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.82	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521217

Sample Number:	021751263	**Paddock Name:**	OM705 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.78	mg/kg	04-024-ICP6	DTPA
Zinc	0.044	mg/kg	04-024-ICP6	DTPA
Manganese	40	mg/kg	04-024-ICP6	DTPA
Iron	50	mg/kg	04-024-ICP6	DTPA
Boron	0.22	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	1.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	54.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	15.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521216

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751262	**Paddock Name:**	OM705 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	72	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	71	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.048		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.82	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.040	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.99	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	51.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	28.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	18.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521216

Sample Number:	021751262	**Paddock Name:**	OM705 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521215

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751261	**Paddock Name:**	OM705 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	76	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	3.2	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.75	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.069	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.08	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	44.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	28.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521215

Sample Number:	021751261	**Paddock Name:**	OM705 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521214

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751260	**Paddock Name:**	OM705 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	60	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.036		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.80	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	43.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	30.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	23.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521214

Sample Number:	021751260	**Paddock Name:**	OM705 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 535944

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751265	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	2			
Available Potassium ^	87	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.080		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	6.3	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	69	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	11	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	17	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.097	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	42	mg/kg	04-027-ICP9	
Aluminium	0.46	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.54	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	13	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535944

Sample Number:	021751265	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.16	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.49	mg/kg	04-024-ICP6	DTPA
Manganese	42	mg/kg	04-024-ICP6	DTPA
Iron	240	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.30		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535943

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751266	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	41	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.041		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.51	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	38	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.92	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	43		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.76	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	10	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.75	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535943

Sample Number:	021751266	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.64	mg/kg	04-024-ICP6	DTPA
Zinc	0.14	mg/kg	04-024-ICP6	DTPA
Manganese	22	mg/kg	04-024-ICP6	DTPA
Iron	91	mg/kg	04-024-ICP6	DTPA
Boron	0.11	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.19		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535942

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751267	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	3			
Available Potassium ^	32	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.038		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.082	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.055	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.31	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535942

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SOIL ANALYSIS REPORT

Report Number: 535941

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751268	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	34	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.69	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.087	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535941

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SOIL ANALYSIS REPORT

Report Number: 535940

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751269	**Paddock Name:**	OM706	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	73	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	56	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.4	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.59	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.69		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699
Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 535934

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760450	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	190	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	64	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	10	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	17	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	46		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.2	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.3	%	04-026-ICP8	Calculation

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Report Number: 535934

Sample Number:	021760450	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.16	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.95	mg/kg	04-024-ICP6	DTPA
Zinc	1.1	mg/kg	04-024-ICP6	DTPA
Manganese	73	mg/kg	04-024-ICP6	DTPA
Iron	210	mg/kg	04-024-ICP6	DTPA
Boron	0.25	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.37		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535933

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760449	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	61	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	63	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	6.0	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.59	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	22	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	34		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.64	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.8	%	04-026-ICP8	Calculation

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Report Number: 535933

Sample Number:	021760449	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.75	mg/kg	04-024-ICP6	DTPA
Zinc	0.21	mg/kg	04-024-ICP6	DTPA
Manganese	32	mg/kg	04-024-ICP6	DTPA
Iron	94	mg/kg	04-024-ICP6	DTPA
Boron	0.14	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.21		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535932

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760448	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.039		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.97	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.054	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.23	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535931

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760447	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	81	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 535930

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760446	**Paddock Name:**	OM711	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	73	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699
Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535930

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SOIL ANALYSIS REPORT

Report Number: 520997

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760416	**Paddock Name:**	OM712 0-5	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.095		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	8.0	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	39	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	9.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	12	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	49		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.39	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.15	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520997

Sample Number:	021760416	**Paddock Name:**	OM712 0-5	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	51	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.37	mg/kg	04-024-ICP6	DTPA
Manganese	56	mg/kg	04-024-ICP6	DTPA
Iron	220	mg/kg	04-024-ICP6	DTPA
Boron	0.16	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	62.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520998

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760417	**Paddock Name:**	OM712 5-15	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.043		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.95	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	7.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	43		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.01	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 520998

Sample Number:	021760417	**Paddock Name:**	OM712 5-15	**Date Sampled:**	22-Mar-2017
Test Code:	2017-082			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.90	mg/kg	04-024-ICP6	DTPA
Zinc	0.13	mg/kg	04-024-ICP6	DTPA
Manganese	38	mg/kg	04-024-ICP6	DTPA
Iron	92	mg/kg	04-024-ICP6	DTPA
Boron	0.11	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	70.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520971

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760418	**Paddock Name:**	OM712 15-30	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	3			
20 hour natural aggregate	1			
20 hour remoulded aggregate	3			
Available Potassium	38	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.040		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	3.7	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.098	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.64	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.085	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	50.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	33.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520971

Sample Number:	021760418	**Paddock Name:**	OM712 15-30	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520972

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

Sample Number:	021760419	**Paddock Name:**	OM712 30-60	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	4			
20 hour natural aggregate	1			
20 hour remoulded aggregate	4			
Available Potassium	34	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.087	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.48	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	50.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	32.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	14.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 520972

Sample Number:	021760419	**Paddock Name:**	OM712 30-60	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520973

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760420	**Paddock Name:**	OM712 60-100	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	66	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.021		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	1.9	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.35	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.77	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	39.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	33.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 520973

Sample Number:	021760420	**Paddock Name:**	OM712 60-100	**Date Sampled:**	22-Mar-2017
Test Code:	2017-064			**Date Received:**	29-Mar-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521046

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751315	**Paddock Name:**	OM719 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	97	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	48	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	88		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.46	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521046

Sample Number:	021751315	**Paddock Name:**	OM719 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.15	dS/m	04-031-PH	1:5 soil/water
Chloride	41	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.9	mg/kg	04-024-ICP6	DTPA
Zinc	1.3	mg/kg	04-024-ICP6	DTPA
Manganese	85	mg/kg	04-024-ICP6	DTPA
Iron	300	mg/kg	04-024-ICP6	DTPA
Boron	0.39	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	8.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	38.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	36.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	16.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521047

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751314	**Paddock Name:**	OM719 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	86	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.9	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	86		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.86	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521047

Sample Number:	021751314	**Paddock Name:**	OM719 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.6	mg/kg	04-024-ICP6	DTPA
Zinc	0.47	mg/kg	04-024-ICP6	DTPA
Manganese	36	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.33	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	37.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	34.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	20.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521048

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

Sample Number:	021751313	**Paddock Name:**	OM719 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.020		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	1.9	%	04-026-ICP8	Calculation
Slaking	2			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	7.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	38.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	34.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	19.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521048

Sample Number:	021751313	**Paddock Name:**	OM719 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521049

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

Sample Number:	021751312	**Paddock Name:**	OM719 40-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	4			
20 hour remoulded aggregate	3			
Available Potassium	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	29	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.012		04-026-ICP8	Calculated
Magnesium % of Cations	57	%	04-026-ICP8	Calculation
Potassium % of Cations	1.1	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	6.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.39	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	4.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	36.8	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	12	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.52		04-026-ICP8	Calculation
pH (1:5 Water)	7.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.42	dS/m	04-031-PH	1:5 soil/water
Chloride	510	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	5.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	39.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	8.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	45.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521049

Sample Number:	021751312	**Paddock Name:**	OM719 40-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521050

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751311	**Paddock Name:**	OM719 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	23	%	04-026-ICP8	Calculation
Emerson Class	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.011		04-026-ICP8	Calculated
Magnesium % of Cations	59	%	04-026-ICP8	Calculation
Potassium % of Cations	0.88	%	04-026-ICP8	Calculation
Slaking	2			
pH (1:5 CaCl2)	7.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.35	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	9.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	6.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	39.1	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	17	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.39		04-026-ICP8	Calculation
pH (1:5 Water)	8.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.95	dS/m	04-031-PH	1:5 soil/water
Chloride	1300	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	7.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	49.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	32.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521050

Sample Number:	021751311	**Paddock Name:**	OM719 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521056

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751287	**Paddock Name:**	OM722 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.19		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	9.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	54		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.77	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	46	mg/kg	04-027-ICP9	
Aluminium	0.51	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.86	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	18	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521056

Sample Number:	021751287	**Paddock Name:**	OM722 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.4	mg/kg	04-024-ICP6	DTPA
Zinc	0.64	mg/kg	04-024-ICP6	DTPA
Manganese	52	mg/kg	04-024-ICP6	DTPA
Iron	370	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521057

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751286	**Paddock Name:**	OM722 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.058		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	4.7	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.63	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	18	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	36		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.86	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	14	mg/kg	04-027-ICP9	
Aluminium	0.16	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.73	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.7	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521057

Sample Number:	021751286	**Paddock Name:**	OM722 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	70	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.99	mg/kg	04-024-ICP6	DTPA
Zinc	0.16	mg/kg	04-024-ICP6	DTPA
Manganese	34	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.13	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521058

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751285	**Paddock Name:**	OM722 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	36	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.039		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.092	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	71	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521058

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SOIL ANALYSIS REPORT

Report Number: 521059

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751284	**Paddock Name:**	OM722 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	70	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.22	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	24	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521059

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SOIL ANALYSIS REPORT

Report Number: 521060

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751283	**Paddock Name:**	OM722 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.038		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.93	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.42	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.88		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	17	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521060

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SOIL ANALYSIS REPORT

Report Number: 535893

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751282	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	520	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	35	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.73		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	40	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	66	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	13	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	39		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.57	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.044	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.23	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535893

Sample Number:	021751282	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.19	dS/m	04-031-PH	1:5 soil/water
Chloride	33	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.89	mg/kg	04-024-ICP6	DTPA
Manganese	61	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.33		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535894

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751281	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	210	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.30		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	21	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.77	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	43	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	42		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.41	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.032	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	16	mg/kg	04-027-ICP9	
Aluminium	0.18	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.53	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535894

Sample Number:	021751281	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	34	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.3	mg/kg	04-024-ICP6	DTPA
Zinc	0.46	mg/kg	04-024-ICP6	DTPA
Manganese	47	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.20		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535895

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751280	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	95	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	68	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.056		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	12	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.96	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.53	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 535896

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751279	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	1			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	64	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.037		04-026-ICP8	Calculated
Magnesium % of Cations	31	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.97	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535897

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751305	**Paddock Name:**	OM723	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	0			
Available Potassium ^	78	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	3.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.88	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.21	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535898

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751455	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	93	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.021		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	1.9	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	54	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	60	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	110		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	6.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.60	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	12.2	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535898

Sample Number:	021751455	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.27	dS/m	04-031-PH	1:5 soil/water
Chloride	110	mg/kg	04-063-FIA3	Soluble Chloride
Copper	4.6	mg/kg	04-024-ICP6	DTPA
Zinc	0.69	mg/kg	04-024-ICP6	DTPA
Manganese	28	mg/kg	04-024-ICP6	DTPA
Iron	250	mg/kg	04-024-ICP6	DTPA
Boron	0.33	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.14		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535899

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751454	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.014		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	1.3	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	6.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.95	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	46	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	89		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	7.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.57	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	13.2	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535899

Sample Number:	021751454	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.18	dS/m	04-031-PH	1:5 soil/water
Chloride	74	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.33	mg/kg	04-024-ICP6	DTPA
Manganese	19	mg/kg	04-024-ICP6	DTPA
Iron	63	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535900

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751453	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	51	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.013		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	1.2	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	6.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.46	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	10.9	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	7.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	60	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535900

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SOIL ANALYSIS REPORT

Report Number: 535901

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751452	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	6.6	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.0059		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	0.57	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	7.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.017	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.99	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	8.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535901

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SOIL ANALYSIS REPORT

Report Number: 535902

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751451	**Paddock Name:**	OM724	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.017		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	1.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	7.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.84	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	10.5	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	8.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.83		04-026-ICP8	Calculation
pH (1:5 Water)	8.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.15	dS/m	04-031-PH	1:5 soil/water
Chloride	59	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535902

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SOIL ANALYSIS REPORT

Report Number: 521204

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751335	**Paddock Name:**	OM737 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	500	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.26		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	19	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Red-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	66		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.087	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	27	mg/kg	04-027-ICP9	
Aluminium	0.30	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.56	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.6	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521204

Sample Number:	021751335	**Paddock Name:**	OM737 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.20	dS/m	04-031-PH	1:5 soil/water
Chloride	34	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.3	mg/kg	04-024-ICP6	DTPA
Zinc	1.2	mg/kg	04-024-ICP6	DTPA
Manganese	160	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.43	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	45.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	27.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	20.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521203

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751334	**Paddock Name:**	OM737 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	380	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.25		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	19	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Red-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	40	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	71		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.98	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.99	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.059	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.32	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.28	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521203

Sample Number:	021751334	**Paddock Name:**	OM737 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	24	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.3	mg/kg	04-024-ICP6	DTPA
Zinc	0.27	mg/kg	04-024-ICP6	DTPA
Manganese	130	mg/kg	04-024-ICP6	DTPA
Iron	64	mg/kg	04-024-ICP6	DTPA
Boron	0.35	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	42.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	24.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521202

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751333	**Paddock Name:**	OM737 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	330	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	63	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	9.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.83	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.85	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.24	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.70	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	34.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	20.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	43.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521202

Sample Number:	021751333	**Paddock Name:**	OM737 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521201

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751332	**Paddock Name:**	OM737 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.069		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	6.2	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.057	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.4	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.71	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.86	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	55.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	18.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	23.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521201

Sample Number:	021751332	**Paddock Name:**	OM737 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521200

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751331	**Paddock Name:**	OM737 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	70	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.038		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.059	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	39	mg/kg	04-027-ICP9	
Aluminium	0.43	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.41	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	34	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	35.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	45.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521200

Sample Number:	021751331	**Paddock Name:**	OM737 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521013

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021546305	**Paddock Name:**	OM738 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	24	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.41		04-026-ICP8	Calculated
Magnesium % of Cations	11	%	04-026-ICP8	Calculation
Potassium % of Cations	14	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	3.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	21	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	52		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.61	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.27	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	110	mg/kg	04-027-ICP9	
Aluminium	1.3	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.51	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	51	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521013

Sample Number:	021546305	**Paddock Name:**	OM738 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.4	mg/kg	04-024-ICP6	DTPA
Zinc	0.67	mg/kg	04-024-ICP6	DTPA
Manganese	46	mg/kg	04-024-ICP6	DTPA
Iron	370	mg/kg	04-024-ICP6	DTPA
Boron	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521014

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021546304	**Paddock Name:**	OM738 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	18	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.41		04-026-ICP8	Calculated
Magnesium % of Cations	12	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.51	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	53		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	91	mg/kg	04-027-ICP9	
Aluminium	1.0	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.74	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	58	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521014

Sample Number:	021546304	**Paddock Name:**	OM738 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	0.22	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	86	mg/kg	04-024-ICP6	DTPA
Boron	0.10	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521015

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021546299	**Paddock Name:**	OM738 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	85	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	8.7	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.59	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	43	mg/kg	04-027-ICP9	
Aluminium	0.47	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.50	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	19	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	21	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521015

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SOIL ANALYSIS REPORT

Report Number: 521016

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751330	**Paddock Name:**	OM738 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	99	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	46	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.093	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.80	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 521017

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546306	**Paddock Name:**	OM738 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	82	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	53	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.099	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.89	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.81		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521017

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SOIL ANALYSIS REPORT

Report Number: 521222

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546293	**Paddock Name:**	OM739 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	280	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.20		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	15	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	67	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	9.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	19	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	63		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.71	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.088	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.33	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.74	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.9	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521222

Sample Number:	021546293	**Paddock Name:**	OM739 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.18	dS/m	04-031-PH	1:5 soil/water
Chloride	62	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.79	mg/kg	04-024-ICP6	DTPA
Manganese	56	mg/kg	04-024-ICP6	DTPA
Iron	330	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	45.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	39.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521221

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546292	**Paddock Name:**	OM739 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	9.8	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.80	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	30	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	40		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.69	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	32	mg/kg	04-027-ICP9	
Aluminium	0.35	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521221

Sample Number:	021546292	**Paddock Name:**	OM739 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	18	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.80	mg/kg	04-024-ICP6	DTPA
Zinc	0.22	mg/kg	04-024-ICP6	DTPA
Manganese	39	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.16	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	46.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	42.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	9.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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^ NATA accreditation does not cover the performance of this service.

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SOIL ANALYSIS REPORT

Report Number: 521220

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021546291	**Paddock Name:**	OM739 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	2			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	78	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	9.2	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	8.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.57	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.032	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	9.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	48.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	39.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	9.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521220

Sample Number:	021546291	**Paddock Name:**	OM739 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521219

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021546290	**Paddock Name:**	OM739 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	240	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.10		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	8.9	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.61	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.073	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.97	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	46.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	21.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	30.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521219

Sample Number:	021546290	**Paddock Name:**	OM739 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521213

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751555	**Paddock Name:**	OM739 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	89	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.066		04-026-ICP8	Calculated
Magnesium % of Cations	47	%	04-026-ICP8	Calculation
Potassium % of Cations	6.1	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.068	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.74	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.94		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	6.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	38.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	37.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	18.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521213

Sample Number:	021751555	**Paddock Name:**	OM739 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521018

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751554	**Paddock Name:**	OM740 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.094		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	8.6	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	27	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	17	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	72		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.44	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.027	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.51	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521018

Sample Number:	021751554	**Paddock Name:**	OM740 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	34	mg/kg	04-063-FIA3	Soluble Chloride
Copper	4.3	mg/kg	04-024-ICP6	DTPA
Zinc	2.3	mg/kg	04-024-ICP6	DTPA
Manganese	36	mg/kg	04-024-ICP6	DTPA
Iron	280	mg/kg	04-024-ICP6	DTPA
Boron	0.36	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	5.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	43.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	36.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521019

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751553	**Paddock Name:**	OM740 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	70	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	68	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.037		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	4.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	68		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.21	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.95	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521019

Sample Number:	021751553	**Paddock Name:**	OM740 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	4.0	mg/kg	04-024-ICP6	DTPA
Zinc	1.4	mg/kg	04-024-ICP6	DTPA
Manganese	29	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.22	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	5.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	36.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	16.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

The results pertain only to the sample submitted.

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SOIL ANALYSIS REPORT

Report Number: 521020

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751552	**Paddock Name:**	OM740 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	2			
20 hour natural aggregate	0			
20 hour remoulded aggregate	4			
Available Potassium	81	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	4.3	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.86	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	10.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	35.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	32.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	22.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521020

Sample Number:	021751552	**Paddock Name:**	OM740 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521021

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751551	**Paddock Name:**	OM740 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	3			
20 hour natural aggregate	1			
20 hour remoulded aggregate	4			
Available Potassium	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.044		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.66	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.31	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.48	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	7.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	29.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	27.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	36.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521021

Sample Number:	021751551	**Paddock Name:**	OM740 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521022

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751550	**Paddock Name:**	OM740 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	2			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	180	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.053		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	5.0	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.84	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.43	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	15.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	24.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	19.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	40.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521022

Sample Number:	021751550	**Paddock Name:**	OM740 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 535958

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751242	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	380	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.27		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	20	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	4.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	4.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	260	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	110	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	28	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	88	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	48		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.97	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	25	mg/kg	04-027-ICP9	
Aluminium	0.28	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.89	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.7	%	04-026-ICP8	Calculation

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535958

Sample Number:	021751242	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.50	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.69	mg/kg	04-024-ICP6	DTPA
Zinc	5.6	mg/kg	04-024-ICP6	DTPA
Manganese	75	mg/kg	04-024-ICP6	DTPA
Iron	290	mg/kg	04-024-ICP6	DTPA
Boron	0.53	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	1.83		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535959

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751243	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	22	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.65		04-026-ICP8	Calculated
Magnesium % of Cations	12	%	04-026-ICP8	Calculation
Potassium % of Cations	23	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.44	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	34		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.31	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	56	mg/kg	04-027-ICP9	
Aluminium	0.62	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	43	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535959

Sample Number:	021751243	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	63	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.26	mg/kg	04-024-ICP6	DTPA
Zinc	0.17	mg/kg	04-024-ICP6	DTPA
Manganese	23	mg/kg	04-024-ICP6	DTPA
Iron	110	mg/kg	04-024-ICP6	DTPA
Boron	0.11	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.32		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535960

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751244	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	30	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.51		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	25	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.31	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	23	mg/kg	04-027-ICP9	
Aluminium	0.25	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.02	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	25	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	17	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535960

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SOIL ANALYSIS REPORT

Report Number: 535961

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751245	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	480	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	31	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.38		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	22	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.040	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	89	mg/kg	04-027-ICP9	
Aluminium	0.99	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.52	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.72	%	04-026-ICP8	Calculation
Aluminium % of Cations	18	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535961

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SOIL ANALYSIS REPORT

Report Number: 535962

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751246	**Paddock Name:**	OM741	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	180	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	34	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.087		04-026-ICP8	Calculated
Magnesium % of Cations	55	%	04-026-ICP8	Calculation
Potassium % of Cations	7.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.092	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.14	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.2	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.64		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	42	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535962

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SOIL ANALYSIS REPORT

Report Number: 535963

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751237	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.054		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	4.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	120	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	9.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	9.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	19	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	54		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.074	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	16	mg/kg	04-027-ICP9	
Aluminium	0.18	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.31	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535963

Sample Number:	021751237	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.24	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	1.0	mg/kg	04-024-ICP6	DTPA
Manganese	45	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.30	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.35		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535964

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751238	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	39	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.036		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	3.2	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.93	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	48	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	53		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.80	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.15	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.13	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.7	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535964

Sample Number:	021751238	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.98	mg/kg	04-024-ICP6	DTPA
Zinc	0.20	mg/kg	04-024-ICP6	DTPA
Manganese	38	mg/kg	04-024-ICP6	DTPA
Iron	110	mg/kg	04-024-ICP6	DTPA
Boron	0.21	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.17		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535965

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751239	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	28	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	71	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.64	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.071	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.83	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.030	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.23	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.92	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535965

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SOIL ANALYSIS REPORT

Report Number: 535966

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751240	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	53	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	40	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.078	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.23	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535966

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SOIL ANALYSIS REPORT

Report Number: 535967

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751241	**Paddock Name:**	OM742	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	53	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.72	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.074	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.81		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535967

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SOIL ANALYSIS REPORT

Report Number: 535968

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751232	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.076		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	6.8	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	150	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	13	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	11	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	30	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	79		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.44	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.053	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.82	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535968

Sample Number:	021751232	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.31	dS/m	04-031-PH	1:5 soil/water
Chloride	19	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.7	mg/kg	04-024-ICP6	DTPA
Zinc	3.9	mg/kg	04-024-ICP6	DTPA
Manganese	69	mg/kg	04-024-ICP6	DTPA
Iron	320	mg/kg	04-024-ICP6	DTPA
Boron	0.48	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.38		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535969

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751233	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	70	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	45	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	59		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.058	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.13	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.94	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535969

Sample Number:	021751233	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	17	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.1	mg/kg	04-024-ICP6	DTPA
Zinc	2.8	mg/kg	04-024-ICP6	DTPA
Manganese	73	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.20		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535970

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751234	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	60	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.057	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.86	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535970

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SOIL ANALYSIS REPORT

Report Number: 535971

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751235	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	72	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	68	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	6.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.098	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.02	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535971

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SOIL ANALYSIS REPORT

Report Number: 535972

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751236	**Paddock Name:**	OM743	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	8.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	6.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	15.1	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535972

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SOIL ANALYSIS REPORT

Report Number: 535973

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751227	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	84	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	10	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	79		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.051	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.09	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.64	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.5	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535973

Sample Number:	021751227	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	19	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.0	mg/kg	04-024-ICP6	DTPA
Zinc	0.74	mg/kg	04-024-ICP6	DTPA
Manganese	35	mg/kg	04-024-ICP6	DTPA
Iron	210	mg/kg	04-024-ICP6	DTPA
Boron	0.27	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535974

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751228	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	68	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	25	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	64		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.053	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.77	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535974

Sample Number:	021751228	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	0.50	mg/kg	04-024-ICP6	DTPA
Manganese	31	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.20		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535975

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751229	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	24	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.86	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.029	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.30	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535975

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SOIL ANALYSIS REPORT

Report Number: 535976

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751230	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	4			
Available Potassium ^	20	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.051	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.80	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.69	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.029	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.56	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535976

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SOIL ANALYSIS REPORT

Report Number: 535977

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751231	**Paddock Name:**	OM744	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	4			
Available Potassium ^	84	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	33	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	60	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.71	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.14	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.57	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.5	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.54		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535977

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SOIL ANALYSIS REPORT

Report Number: 521023

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751222	**Paddock Name:**	OM745 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	10	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	22	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	21	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	68		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.49	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.030	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	36	mg/kg	04-027-ICP9	
Aluminium	0.40	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521023

Sample Number:	021751222	**Paddock Name:**	OM745 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.57	mg/kg	04-024-ICP6	DTPA
Manganese	54	mg/kg	04-024-ICP6	DTPA
Iron	260	mg/kg	04-024-ICP6	DTPA
Boron	0.31	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521024

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751223	**Paddock Name:**	OM745 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	61	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.087		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	6.9	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.64	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	48		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.43	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.32	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.29	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521024

Sample Number:	021751223	**Paddock Name:**	OM745 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.89	mg/kg	04-024-ICP6	DTPA
Zinc	0.22	mg/kg	04-024-ICP6	DTPA
Manganese	39	mg/kg	04-024-ICP6	DTPA
Iron	96	mg/kg	04-024-ICP6	DTPA
Boron	0.22	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521025

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751224	**Paddock Name:**	OM745 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	67	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	64	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.052		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	4.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.91	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.97	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.024	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	14	mg/kg	04-027-ICP9	
Aluminium	0.16	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.65	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.67	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521025

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SOIL ANALYSIS REPORT

Report Number: 521026

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751225	**Paddock Name:**	OM745 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.047		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521026

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SOIL ANALYSIS REPORT

Report Number: 521027

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751226	**Paddock Name:**	OM745 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	71	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	4.6	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	10	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.030	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.98	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.76	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521027

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SOIL ANALYSIS REPORT

Report Number: 535978

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751217	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.19		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	61	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	87		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.31	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.51	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	87	mg/kg	04-027-ICP9	
Aluminium	0.97	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.88	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	34	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535978

Sample Number:	021751217	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	4.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.2	mg/kg	04-024-ICP6	DTPA
Zinc	1.1	mg/kg	04-024-ICP6	DTPA
Manganese	68	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.26	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.16		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535979

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751218	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.078		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	5.5	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.82	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	45	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.65	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.043	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	54	mg/kg	04-027-ICP9	
Aluminium	0.60	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	21	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535979

Sample Number:	021751218	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.8	mg/kg	04-024-ICP6	DTPA
Zinc	0.86	mg/kg	04-024-ICP6	DTPA
Manganese	74	mg/kg	04-024-ICP6	DTPA
Iron	110	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536012

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751219	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	71	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.050		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	4.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.059	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.19	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.10	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.7	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536012

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SOIL ANALYSIS REPORT

Report Number: 536011

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751220	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	87	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.055		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	4.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.97	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.060	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	22	mg/kg	04-027-ICP9	
Aluminium	0.24	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.52	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536011

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SOIL ANALYSIS REPORT

Report Number: 536010

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751221	**Paddock Name:**	OM746	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	77	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	44	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.065		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.051	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	22	mg/kg	04-027-ICP9	
Aluminium	0.25	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.8	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536010

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SOIL ANALYSIS REPORT

Report Number: 521028

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751212	**Paddock Name:**	OM747 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	220	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.20		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	15	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	37	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	4.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	86		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.23	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.3	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521028

Sample Number:	021751212	**Paddock Name:**	OM747 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.8	mg/kg	04-024-ICP6	DTPA
Zinc	3.1	mg/kg	04-024-ICP6	DTPA
Manganese	43	mg/kg	04-024-ICP6	DTPA
Iron	620	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521029

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751213	**Paddock Name:**	OM747 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.23		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	15	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.96	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	77		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.35	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.94	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.043	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	39	mg/kg	04-027-ICP9	
Aluminium	0.43	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.34	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	18	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521029

Sample Number:	021751213	**Paddock Name:**	OM747 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.0	mg/kg	04-024-ICP6	DTPA
Zinc	1.1	mg/kg	04-024-ICP6	DTPA
Manganese	35	mg/kg	04-024-ICP6	DTPA
Iron	350	mg/kg	04-024-ICP6	DTPA
Boron	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521030

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751214	**Paddock Name:**	OM747 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	12	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.76	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.52	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521030

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SOIL ANALYSIS REPORT

Report Number: 521031

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751215	**Paddock Name:**	OM747 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	22	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	67	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.90	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	7.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.32		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521031

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SOIL ANALYSIS REPORT

Report Number: 521032

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751216	**Paddock Name:**	OM747 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	88	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	13	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	73	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	6.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.93	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.24	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	11	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.17		04-026-ICP8	Calculation
pH (1:5 Water)	7.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521032

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SOIL ANALYSIS REPORT

Report Number: 536009

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751431	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	87	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.081		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	7.1	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.94	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	38	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	58		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.056	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536009

Sample Number:	021751431	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.048	mg/kg	04-024-ICP6	DTPA
Manganese	19	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.19		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536008

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751432	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	57	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.068		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	5.5	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.67	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	22	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	45		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	22	mg/kg	04-027-ICP9	
Aluminium	0.25	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	9.3	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536008

Sample Number:	021751432	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	23	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.26	mg/kg	04-024-ICP6	DTPA
Manganese	35	mg/kg	04-024-ICP6	DTPA
Iron	67	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.17		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536007

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751433	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	80	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.059		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	5.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.065	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.15	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536007

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SOIL ANALYSIS REPORT

Report Number: 536006

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751434	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	92	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.061		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.70	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.085	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.32	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536006

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SOIL ANALYSIS REPORT

Report Number: 536005

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751435	**Paddock Name:**	OM748	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.059		04-026-ICP8	Calculated
Magnesium % of Cations	48	%	04-026-ICP8	Calculation
Potassium % of Cations	5.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.19	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.80		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 536005

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SOIL ANALYSIS REPORT

Report Number: 536004

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751426	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	260	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	10	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	3.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	4.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	210	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	17	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	33	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	150		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.67	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	67	mg/kg	04-027-ICP9	
Aluminium	0.74	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	11	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536004

Sample Number:	021751426	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.46	dS/m	04-031-PH	1:5 soil/water
Chloride	34	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.59	mg/kg	04-024-ICP6	DTPA
Zinc	2.3	mg/kg	04-024-ICP6	DTPA
Manganese	35	mg/kg	04-024-ICP6	DTPA
Iron	390	mg/kg	04-024-ICP6	DTPA
Boron	0.89	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.22		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536051

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751427	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	30	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	6.7	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	120		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.75	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.60	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.039	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	81	mg/kg	04-027-ICP9	
Aluminium	0.90	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.46	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	37	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536051

Sample Number:	021751427	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	16	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.47	mg/kg	04-024-ICP6	DTPA
Zinc	0.17	mg/kg	04-024-ICP6	DTPA
Manganese	5.3	mg/kg	04-024-ICP6	DTPA
Iron	180	mg/kg	04-024-ICP6	DTPA
Boron	0.32	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	0.012	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.06		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536050

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751428	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	75	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	17	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.15		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	7.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.83	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.041	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	110	mg/kg	04-027-ICP9	
Aluminium	1.2	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.76	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	44	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.57		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536050

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SOIL ANALYSIS REPORT

Report Number: 536049

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751429	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	7.1	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	6.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.097	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	190	mg/kg	04-027-ICP9	
Aluminium	2.1	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.98	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	42	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.17		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536049

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SOIL ANALYSIS REPORT

Report Number: 536048

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751430	**Paddock Name:**	OM749	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	2.0	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.083		04-026-ICP8	Calculated
Magnesium % of Cations	58	%	04-026-ICP8	Calculation
Potassium % of Cations	5.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.94	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.27	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	160	mg/kg	04-027-ICP9	
Aluminium	1.8	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	30	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.034		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536048

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SOIL ANALYSIS REPORT

Report Number: 521033

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751421	**Paddock Name:**	OM750 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	83	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.036		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	3.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	48	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	7.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.033	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.48	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.38	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521033

Sample Number:	021751421	**Paddock Name:**	OM750 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	6.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.87	mg/kg	04-024-ICP6	DTPA
Zinc	1.7	mg/kg	04-024-ICP6	DTPA
Manganese	7.0	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.48	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	20.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	46.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521034

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751422	**Paddock Name:**	OM750 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	45	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.052		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.97	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	55	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	7.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	61		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.030	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	59	mg/kg	04-027-ICP9	
Aluminium	0.66	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.93	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521034

Sample Number:	021751422	**Paddock Name:**	OM750 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	19	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.28	mg/kg	04-024-ICP6	DTPA
Zinc	0.19	mg/kg	04-024-ICP6	DTPA
Manganese	3.0	mg/kg	04-024-ICP6	DTPA
Iron	85	mg/kg	04-024-ICP6	DTPA
Boron	0.16	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	17.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	27.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521035

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751423	**Paddock Name:**	OM750 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	1			
Available Potassium	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.080		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	5.1	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	20	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	5.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.042	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	79	mg/kg	04-027-ICP9	
Aluminium	0.88	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.83	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	31	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	20	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	17.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	36.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	28.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	17.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521035

Sample Number:	021751423	**Paddock Name:**	OM750 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521146

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751424	**Paddock Name:**	OM750 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	73	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	7.0	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.072		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.55	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.071	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	450	mg/kg	04-027-ICP9	
Aluminium	5.0	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.93	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.89	%	04-026-ICP8	Calculation
Aluminium % of Cations	63	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.26		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	9.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	20.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	13.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	56.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521146

Sample Number:	021751424	**Paddock Name:**	OM750 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521147

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751425	**Paddock Name:**	OM750 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	46	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	2.6	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.043		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.087	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	260	mg/kg	04-027-ICP9	
Aluminium	2.9	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.94	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	49	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.062		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	9.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	29.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	43.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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8 South Rd, Werribee Vic 3030
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SOIL ANALYSIS REPORT

Report Number: 521147

Sample Number:	021751425	**Paddock Name:**	OM750 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 536047

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751549	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	91	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	44	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	7.7	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	64	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.9	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	62		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.023	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	71	mg/kg	04-027-ICP9	
Aluminium	0.79	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.02	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.75	%	04-026-ICP8	Calculation
Aluminium % of Cations	26	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536047

Sample Number:	021751549	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.0	mg/kg	04-024-ICP6	DTPA
Zinc	0.45	mg/kg	04-024-ICP6	DTPA
Manganese	36	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.27	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536046

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751548	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	53	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.069		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	5.0	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.65	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	44	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	45		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.025	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	50	mg/kg	04-027-ICP9	
Aluminium	0.55	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.92	%	04-026-ICP8	Calculation
Aluminium % of Cations	20	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536046

Sample Number:	021751548	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.21	mg/kg	04-024-ICP6	DTPA
Manganese	44	mg/kg	04-024-ICP6	DTPA
Iron	70	mg/kg	04-024-ICP6	DTPA
Boron	0.21	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.11		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536045

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751547	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.039		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	3.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.61	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.037	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.89	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.94	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536045

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SOIL ANALYSIS REPORT

Report Number: 536044

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751546	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.043		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	4.1	%	04-026-ICP8	Calculation
Slaking ^	2			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.055	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.2	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.86	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.70	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536044

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SOIL ANALYSIS REPORT

Report Number: 536043

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751545	**Paddock Name:**	OM751	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.054		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	5.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.71	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.38	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.40	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.51	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536043

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SOIL ANALYSIS REPORT

Report Number: 521223

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021546307	**Paddock Name:**	OM752 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	47	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	67	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	100		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.065	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	43	mg/kg	04-027-ICP9	
Aluminium	0.48	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.25	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.78	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521223

Sample Number:	021546307	**Paddock Name:**	OM752 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.4	mg/kg	04-024-ICP6	DTPA
Zinc	2.1	mg/kg	04-024-ICP6	DTPA
Manganese	45	mg/kg	04-024-ICP6	DTPA
Iron	440	mg/kg	04-024-ICP6	DTPA
Boron	0.32	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	10.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	39.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	38.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521212

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751544	**Paddock Name:**	OM752 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.018		04-026-ICP8	Calculated
Magnesium % of Cations	48	%	04-026-ICP8	Calculation
Potassium % of Cations	1.8	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	39	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	60		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	25	mg/kg	04-027-ICP9	
Aluminium	0.28	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.01	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.67	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521212

Sample Number:	021751544	**Paddock Name:**	OM752 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	0.94		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	1.0	mg/kg	04-024-ICP6	DTPA
Manganese	28	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	9.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	37.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	39.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	13.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521211

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751543	**Paddock Name:**	OM752 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	36	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	29	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.015		04-026-ICP8	Calculated
Magnesium % of Cations	69	%	04-026-ICP8	Calculation
Potassium % of Cations	1.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.092	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.035	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.37	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.54	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.43		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	10.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	42.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	34.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	13.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521211

Sample Number:	021751543	**Paddock Name:**	OM752 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521210

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751542	**Paddock Name:**	OM752 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	13	%	04-026-ICP8	Calculation
Emerson Class	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.015		04-026-ICP8	Calculated
Magnesium % of Cations	85	%	04-026-ICP8	Calculation
Potassium % of Cations	1.5	%	04-026-ICP8	Calculation
Slaking	2			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.43	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	28.8	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.51	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.15		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	6.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	47.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	12.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	33.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521210

Sample Number:	021751542	**Paddock Name:**	OM752 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521209

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751541	**Paddock Name:**	OM752 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	8.2	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.011		04-026-ICP8	Calculated
Magnesium % of Cations	90	%	04-026-ICP8	Calculation
Potassium % of Cations	1.1	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.78	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.40	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	37.4	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.44	%	04-026-ICP8	Calculation
Aluminium % of Cations	0.36	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.091		04-026-ICP8	Calculation
pH (1:5 Water)	7.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	14.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	23.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	24.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	38.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521209

Sample Number:	021751541	**Paddock Name:**	OM752 60-100	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 536042

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751539	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	83	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.017		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	1.6	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	49		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.80	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.92	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536042

Sample Number:	021751539	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	6.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.38	mg/kg	04-024-ICP6	DTPA
Zinc	0.24	mg/kg	04-024-ICP6	DTPA
Manganese	8.2	mg/kg	04-024-ICP6	DTPA
Iron	180	mg/kg	04-024-ICP6	DTPA
Boron	0.28	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.24		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535993

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751538	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	21	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	80	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.017		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	1.7	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.63	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	24	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.70	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	10	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	42		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.054	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.056	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.22	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535993

Sample Number:	021751538	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	5.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.24	mg/kg	04-024-ICP6	DTPA
Zinc	0.12	mg/kg	04-024-ICP6	DTPA
Manganese	9.4	mg/kg	04-024-ICP6	DTPA
Iron	86	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.24		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535992

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751537	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	2			
Available Potassium ^	17	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	73	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.017		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	1.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.044	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.64	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	46	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535992

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SOIL ANALYSIS REPORT

Report Number: 535991

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751536	**Paddock Name:**	OM753	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.020		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	1.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.0	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.06	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535991

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SOIL ANALYSIS REPORT

Report Number: 535990

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751535	**Paddock Name:**	OM753, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	46	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	37	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.019		04-026-ICP8	Calculated
Magnesium % of Cations	51	%	04-026-ICP8	Calculation
Potassium % of Cations	1.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.70	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.41	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	26	mg/kg	04-027-ICP9	
Aluminium	0.29	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.99	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.2	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.72		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535990

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SOIL ANALYSIS REPORT

Report Number: 535989

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751526	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	2			
Available Potassium ^	54	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	48		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.67	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.072	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.32	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	9.3	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535989

Sample Number:	021751526	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.72	mg/kg	04-024-ICP6	DTPA
Zinc	0.29	mg/kg	04-024-ICP6	DTPA
Manganese	61	mg/kg	04-024-ICP6	DTPA
Iron	100	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.23		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536018

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751528	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.036		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.60	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	58	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	47		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.55	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.066	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	28	mg/kg	04-027-ICP9	
Aluminium	0.31	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.08	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	10	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536018

Sample Number:	021751528	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	32	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.78	mg/kg	04-024-ICP6	DTPA
Zinc	0.16	mg/kg	04-024-ICP6	DTPA
Manganese	62	mg/kg	04-024-ICP6	DTPA
Iron	62	mg/kg	04-024-ICP6	DTPA
Boron	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.17		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536017

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751527	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	57	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	77	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.066	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.96	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	4.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536017

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SOIL ANALYSIS REPORT

Report Number: 536016

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751525	**Paddock Name:**	OM754	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	66	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.066	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536016

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SOIL ANALYSIS REPORT

Report Number: 536015

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751524	**Paddock Name:**	OM754, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.73	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.10	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536015

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SOIL ANALYSIS REPORT

Report Number: 521148

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546313	**Paddock Name:**	OM755 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.056		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	4.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	30	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.1	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	50		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.74	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	35	mg/kg	04-027-ICP9	
Aluminium	0.39	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.91	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	13	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521148

Sample Number:	021546313	**Paddock Name:**	OM755 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.88	mg/kg	04-024-ICP6	DTPA
Zinc	0.81	mg/kg	04-024-ICP6	DTPA
Manganese	19	mg/kg	04-024-ICP6	DTPA
Iron	330	mg/kg	04-024-ICP6	DTPA
Boron	0.27	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521149

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021546312	**Paddock Name:**	OM755 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	42	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.056		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.89	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	41	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	34		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.66	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	38	mg/kg	04-027-ICP9	
Aluminium	0.42	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.54	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	16	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521149

Sample Number:	021546312	**Paddock Name:**	OM755 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.77	mg/kg	04-024-ICP6	DTPA
Zinc	0.33	mg/kg	04-024-ICP6	DTPA
Manganese	19	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521150

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546311	**Paddock Name:**	OM755 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	49	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.072	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	41	mg/kg	04-027-ICP9	
Aluminium	0.46	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.34	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	11	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521150

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SOIL ANALYSIS REPORT

Report Number: 521151

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546310	**Paddock Name:**	OM755 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	42	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	33	mg/kg	04-027-ICP9	
Aluminium	0.37	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.14	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521151

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SOIL ANALYSIS REPORT

Report Number: 521152

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021546309	**Paddock Name:**	OM755 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.085	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.074	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.18	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.06	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.80		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521152

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SOIL ANALYSIS REPORT

Report Number: 521153

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751523	**Paddock Name:**	OM757 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	200	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	63	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	77		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.50	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.80	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.092	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	22	mg/kg	04-027-ICP9	
Aluminium	0.24	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.43	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.5	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521153

Sample Number:	021751523	**Paddock Name:**	OM757 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.8	mg/kg	04-024-ICP6	DTPA
Zinc	1.2	mg/kg	04-024-ICP6	DTPA
Manganese	70	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.31	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

The results pertain only to the sample submitted.

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SOIL ANALYSIS REPORT

Report Number: 521154

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751522	**Paddock Name:**	OM757 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.041		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.86	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	4.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.9	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	67		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.78	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.14	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.26	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.3	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521154

Sample Number:	021751522	**Paddock Name:**	OM757 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.8	mg/kg	04-024-ICP6	DTPA
Zinc	0.66	mg/kg	04-024-ICP6	DTPA
Manganese	39	mg/kg	04-024-ICP6	DTPA
Iron	110	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521155

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751521	**Paddock Name:**	OM757 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	30	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.076	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.69	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521155

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SOIL ANALYSIS REPORT

Report Number: 521156

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751540	**Paddock Name:**	OM757 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	31	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.021		04-026-ICP8	Calculated
Magnesium % of Cations	56	%	04-026-ICP8	Calculation
Potassium % of Cations	1.8	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.15	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	11	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.57		04-026-ICP8	Calculation
pH (1:5 Water)	7.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521156

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SOIL ANALYSIS REPORT

Report Number: 521157

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751534	**Paddock Name:**	OM757 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	4			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	17	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.012		04-026-ICP8	Calculated
Magnesium % of Cations	51	%	04-026-ICP8	Calculation
Potassium % of Cations	0.84	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	7.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	9.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	5.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.3	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	18.9	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	30	%	04-026-ICP8	Calculation
Aluminium % of Cations	0.54	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.34		04-026-ICP8	Calculation
pH (1:5 Water)	9.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.32	dS/m	04-031-PH	1:5 soil/water
Chloride	310	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521157

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SOIL ANALYSIS REPORT

Report Number: 536014

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751520	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	64	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.039		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	51	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	66		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	48	mg/kg	04-027-ICP9	
Aluminium	0.53	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.00	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	11	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536014

Sample Number:	021751520	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	26	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.50	mg/kg	04-024-ICP6	DTPA
Zinc	0.84	mg/kg	04-024-ICP6	DTPA
Manganese	28	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.21		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536013

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751519	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	52	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.035		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	30	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	73		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	39	mg/kg	04-027-ICP9	
Aluminium	0.44	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.42	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	9.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536013

Sample Number:	021751519	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	19	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.37	mg/kg	04-024-ICP6	DTPA
Zinc	0.076	mg/kg	04-024-ICP6	DTPA
Manganese	23	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.10		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536003

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021546308	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.044		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	36	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	52	mg/kg	04-027-ICP9	
Aluminium	0.57	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.04	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	19	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536003

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SOIL ANALYSIS REPORT

Report Number: 536002

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751518	**Paddock Name:**	OM758	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	27	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	35	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	42	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	40	mg/kg	04-027-ICP9	
Aluminium	0.44	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.94	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	15	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.83		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536002

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SOIL ANALYSIS REPORT

Report Number: 536001

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751517	**Paddock Name:**	OM758, 60 to 80 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	35	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	19	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	57	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.95	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.090	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.85	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.49	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	42	mg/kg	04-027-ICP9	
Aluminium	0.46	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.39	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	11	%	04-026-ICP8	Calculation
Aluminium % of Cations	11	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.34		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536001

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SOIL ANALYSIS REPORT

Report Number: 521158

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751510	**Paddock Name:**	OM760 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	51	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	4.9	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	32	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	5.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	48		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	55	mg/kg	04-027-ICP9	
Aluminium	0.61	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.69	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521158

Sample Number:	021751510	**Paddock Name:**	OM760 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.77	mg/kg	04-024-ICP6	DTPA
Zinc	0.61	mg/kg	04-024-ICP6	DTPA
Manganese	81	mg/kg	04-024-ICP6	DTPA
Iron	270	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521159

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751509	**Paddock Name:**	OM760 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	31	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.061		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.63	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	21	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	41		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.079	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.98	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.062	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	53	mg/kg	04-027-ICP9	
Aluminium	0.59	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	29	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521159

Sample Number:	021751509	**Paddock Name:**	OM760 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.53	mg/kg	04-024-ICP6	DTPA
Zinc	0.23	mg/kg	04-024-ICP6	DTPA
Manganese	96	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.17	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521160

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751508	**Paddock Name:**	OM760 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	77	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.096	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.63	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	4.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521160

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SOIL ANALYSIS REPORT

Report Number: 521161

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751507	**Paddock Name:**	OM760 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	57	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	75	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.067	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.21	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521161

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SOIL ANALYSIS REPORT

Report Number: 521162

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751511	**Paddock Name:**	OM760 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	68	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.63	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.071	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521162

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SOIL ANALYSIS REPORT

Report Number: 521163

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751416	**Paddock Name:**	OM761 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	77	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.044		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	50		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.024	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.40	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521163

Sample Number:	021751416	**Paddock Name:**	OM761 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.0	mg/kg	04-024-ICP6	DTPA
Zinc	0.90	mg/kg	04-024-ICP6	DTPA
Manganese	11	mg/kg	04-024-ICP6	DTPA
Iron	290	mg/kg	04-024-ICP6	DTPA
Boron	0.34	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	11.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	48.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	30.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521164

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751417	**Paddock Name:**	OM761 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	44	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.78	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	25		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.031	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.68	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.66	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521164

Sample Number:	021751417	**Paddock Name:**	OM761 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.91	mg/kg	04-024-ICP6	DTPA
Zinc	0.38	mg/kg	04-024-ICP6	DTPA
Manganese	10	mg/kg	04-024-ICP6	DTPA
Iron	100	mg/kg	04-024-ICP6	DTPA
Boron	0.22	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	11.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	51.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	25.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521165

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751418	**Paddock Name:**	OM761 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	39	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	48	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	14.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	43.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	25.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	16.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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8 South Rd, Werribee Vic 3030
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SOIL ANALYSIS REPORT

Report Number: 521165

Sample Number:	021751418	**Paddock Name:**	OM761 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521166

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751419	**Paddock Name:**	OM761 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	94	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	31	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	63	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.96	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.043	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.19	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.96	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.55	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.50		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	13.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	37.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	18.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	31.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521166

Sample Number:	021751419	**Paddock Name:**	OM761 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521167

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751420	**Paddock Name:**	OM761 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	30	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	67	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	6.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.086	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	10.0	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.86	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.45		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	27.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	26.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	28.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521167

Sample Number:	021751420	**Paddock Name:**	OM761 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521205

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751411	**Paddock Name:**	OM762 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	400	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.37		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	23	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	8.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	11	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	66		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	66	mg/kg	04-027-ICP9	
Aluminium	0.73	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	16	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521205

Sample Number:	021751411	**Paddock Name:**	OM762 0-5	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.18	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	1.5	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	250	mg/kg	04-024-ICP6	DTPA
Boron	0.43	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	46.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	32.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521206

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751412	**Paddock Name:**	OM762 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	340	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	44	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.39		04-026-ICP8	Calculated
Magnesium % of Cations	15	%	04-026-ICP8	Calculation
Potassium % of Cations	23	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	57	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	49		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.025	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	58	mg/kg	04-027-ICP9	
Aluminium	0.65	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.78	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.66	%	04-026-ICP8	Calculation
Aluminium % of Cations	17	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521206

Sample Number:	021751412	**Paddock Name:**	OM762 5-15	**Date Sampled:**	28-Apr-2017
Test Code:	2017-082			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	31	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.8	mg/kg	04-024-ICP6	DTPA
Zinc	0.44	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.34	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	47.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	31.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	18.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521207

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751413	**Paddock Name:**	OM762 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	250	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	9.6	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.64	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.028	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.0	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.42	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.5	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	42.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	22.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	33.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521207

Sample Number:	021751413	**Paddock Name:**	OM762 15-30	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521208

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751414	**Paddock Name:**	OM762 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	210	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.075		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	6.8	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.037	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.68	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.48	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	50.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	7.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	40.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521208

Sample Number:	021751414	**Paddock Name:**	OM762 30-60	**Date Sampled:**	28-Apr-2017
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520782

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

Sample Number:	021751415	**Paddock Name:**		**Date Sampled:**	
Test Code:	2017-064			**Date Received:**	2-May-2017
Purchase Order No:	OM			**Date of Report:**	25-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	94	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.088	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.26	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	7.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	37	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	4.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	36.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	38.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 520782

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SOIL ANALYSIS REPORT

Report Number: 536000

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751406	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	95	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.10		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	7.8	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	16	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	46		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.66	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	40	mg/kg	04-027-ICP9	
Aluminium	0.45	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.12	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536000

Sample Number:	021751406	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.69	mg/kg	04-024-ICP6	DTPA
Zinc	0.095	mg/kg	04-024-ICP6	DTPA
Manganese	16	mg/kg	04-024-ICP6	DTPA
Iron	270	mg/kg	04-024-ICP6	DTPA
Boron	0.13	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.35		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535999

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751407	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	40	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.053		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	32	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.1	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	45		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.50	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	46	mg/kg	04-027-ICP9	
Aluminium	0.52	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.55	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	20	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535999

Sample Number:	021751407	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.59	mg/kg	04-024-ICP6	DTPA
Zinc	0.32	mg/kg	04-024-ICP6	DTPA
Manganese	18	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.092	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.18		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535998

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751408	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	20	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.054		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.72	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	14	mg/kg	04-027-ICP9	
Aluminium	0.15	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.22	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535998

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SOIL ANALYSIS REPORT

Report Number: 535997

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751409	**Paddock Name:**	OM763	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	1			
Available Potassium ^	39	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.78	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.099	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.39	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535997

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SOIL ANALYSIS REPORT

Report Number: 535996

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751410	**Paddock Name:**	OM763, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	69	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	48	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.93	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	37	mg/kg	04-027-ICP9	
Aluminium	0.41	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.79		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535996

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SOIL ANALYSIS REPORT

Report Number: 521168

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751022	**Paddock Name:**	OM764 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	290	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	36	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.43		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	26	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	19	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	41		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.73	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.99	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.71	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	30	mg/kg	04-027-ICP9	
Aluminium	0.33	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.77	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521168

Sample Number:	021751022	**Paddock Name:**	OM764 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	1.3	mg/kg	04-024-ICP6	DTPA
Manganese	22	mg/kg	04-024-ICP6	DTPA
Iron	240	mg/kg	04-024-ICP6	DTPA
Boron	0.26	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	61.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	22.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	9.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521169

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751023	**Paddock Name:**	OM764 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	270	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.41		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	26	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	18	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.9	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	39		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.71	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	25	mg/kg	04-027-ICP9	
Aluminium	0.28	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.73	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	10	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521169

Sample Number:	021751023	**Paddock Name:**	OM764 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	1.3	mg/kg	04-024-ICP6	DTPA
Manganese	19	mg/kg	04-024-ICP6	DTPA
Iron	230	mg/kg	04-024-ICP6	DTPA
Boron	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	7.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	56.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	25.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521170

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751024	**Paddock Name:**	OM764 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	2			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	26	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.62		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	28	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	20	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.45	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.41	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	39	mg/kg	04-027-ICP9	
Aluminium	0.43	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	27	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	18	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	6.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	58.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521170

Sample Number:	021751024	**Paddock Name:**	OM764 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521171

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751025	**Paddock Name:**	OM764 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	280	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.21		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	17	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.72	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.043	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.17	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	11.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	41.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	19.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	27.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521171

Sample Number:	021751025	**Paddock Name:**	OM764 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521172

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751026	**Paddock Name:**	OM764 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	36	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.086		04-026-ICP8	Calculated
Magnesium % of Cations	54	%	04-026-ICP8	Calculation
Potassium % of Cations	7.8	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.81	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.051	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.82	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.67		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	18	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	16.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	39.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521172

Sample Number:	021751026	**Paddock Name:**	OM764 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521173

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760981	**Paddock Name:**	OM765 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.066		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Sandy Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	77		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	78	mg/kg	04-027-ICP9	
Aluminium	0.87	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.92	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	30	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521173

Sample Number:	021760981	**Paddock Name:**	OM765 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.22	mg/kg	04-024-ICP6	DTPA
Zinc	0.52	mg/kg	04-024-ICP6	DTPA
Manganese	12	mg/kg	04-024-ICP6	DTPA
Iron	360	mg/kg	04-024-ICP6	DTPA
Boron	0.11	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521077

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760982	**Paddock Name:**	OM765 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	4.6	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.34	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.82	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	<1.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	41		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.096	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.84	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	48	mg/kg	04-027-ICP9	
Aluminium	0.53	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.09	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	25	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521077

Sample Number:	021760982	**Paddock Name:**	OM765 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.075	mg/kg	04-024-ICP6	DTPA
Zinc	0.069	mg/kg	04-024-ICP6	DTPA
Manganese	1.2	mg/kg	04-024-ICP6	DTPA
Iron	83	mg/kg	04-024-ICP6	DTPA
Boron	0.076	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535995

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760983	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	40	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	33	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	71	mg/kg	04-027-ICP9	
Aluminium	0.79	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	7.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	19	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.81		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535995

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SOIL ANALYSIS REPORT

Report Number: 521078

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760984	**Paddock Name:**	OM765 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	32	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	29	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	45	%	04-026-ICP8	Calculation
Potassium % of Cations	1.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.082	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	74	mg/kg	04-027-ICP9	
Aluminium	0.82	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.63	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	7.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	18	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.62		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521078

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SOIL ANALYSIS REPORT

Report Number: 521079

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751021	**Paddock Name:**	OM765 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	28	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	17	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.017		04-026-ICP8	Calculated
Magnesium % of Cations	59	%	04-026-ICP8	Calculation
Potassium % of Cations	1.3	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.071	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.83	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	34	mg/kg	04-027-ICP9	
Aluminium	0.38	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.34	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	16	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.28		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521079

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SOIL ANALYSIS REPORT

Report Number: 535994

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760976	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	32	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	92	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	18	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	83		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.27	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.072	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535994

Sample Number:	021760976	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.18	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.5	mg/kg	04-024-ICP6	DTPA
Zinc	0.14	mg/kg	04-024-ICP6	DTPA
Manganese	44	mg/kg	04-024-ICP6	DTPA
Iron	250	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.22		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535988

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760977	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	0			
Available Potassium ^	85	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.040		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.90	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	36	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	61		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.040	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.74	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.70	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535988

Sample Number:	021760977	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.49	mg/kg	04-024-ICP6	DTPA
Manganese	33	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.12	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.21		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535987

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760978	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	52	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	31	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	8.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.85	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.90	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	28	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 535986

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760979	**Paddock Name:**	OM766	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	6.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	17.5	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535986

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SOIL ANALYSIS REPORT

Report Number: 535985

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760980	**Paddock Name:**	OM766, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.021		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	7.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	20.0	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.74	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	7.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535985

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SOIL ANALYSIS REPORT

Report Number: 521080

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760971	**Paddock Name:**	OM767 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	220	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.15		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	12	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	13	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	120		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	22	mg/kg	04-027-ICP9	
Aluminium	0.25	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.58	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.5	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521080

Sample Number:	021760971	**Paddock Name:**	OM767 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.65	mg/kg	04-024-ICP6	DTPA
Zinc	0.80	mg/kg	04-024-ICP6	DTPA
Manganese	13	mg/kg	04-024-ICP6	DTPA
Iron	530	mg/kg	04-024-ICP6	DTPA
Boron	0.25	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	59.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	25.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521081

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760972	**Paddock Name:**	OM767 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	250	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	42	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.26		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	18	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	4.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	74		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.64	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.039	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	37	mg/kg	04-027-ICP9	
Aluminium	0.41	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.59	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521081

Sample Number:	021760972	**Paddock Name:**	OM767 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.46	mg/kg	04-024-ICP6	DTPA
Zinc	0.28	mg/kg	04-024-ICP6	DTPA
Manganese	8.3	mg/kg	04-024-ICP6	DTPA
Iron	300	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	60.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	24.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521082

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760973	**Paddock Name:**	OM767 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	3			
20 hour natural aggregate	1			
20 hour remoulded aggregate	4			
Available Potassium	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.77	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.94	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.043	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.24	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	4.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	47.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	36.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	12.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521082

Sample Number:	021760973	**Paddock Name:**	OM767 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521083

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760974	**Paddock Name:**	OM767 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	4			
20 hour natural aggregate	1			
20 hour remoulded aggregate	4			
Available Potassium	53	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.073		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	5.7	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.91	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.079	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.19	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.91		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	6.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	42.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	38.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	12.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

Nutrient Advantage Laboratory Services
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Incitec Pivot Limited - ABN 42 004 080 264
8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521083

Sample Number:	021760974	**Paddock Name:**	OM767 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521084

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760975	**Paddock Name:**	OM767 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	20	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	71	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.74	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	53	mg/kg	04-027-ICP9	
Aluminium	0.59	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	16.7	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.5	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.28		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	32.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	20.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	44.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521084

Sample Number:	021760975	**Paddock Name:**	OM767 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 535984

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760966	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	40	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	37	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.072		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	37	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	93		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.44	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	81	mg/kg	04-027-ICP9	
Aluminium	0.90	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.55	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	35	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535984

Sample Number:	021760966	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.41	mg/kg	04-024-ICP6	DTPA
Zinc	0.038	mg/kg	04-024-ICP6	DTPA
Manganese	9.5	mg/kg	04-024-ICP6	DTPA
Iron	310	mg/kg	04-024-ICP6	DTPA
Boron	0.13	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.15		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535983

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760967	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	27	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.063		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.78	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	18	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.1	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	74		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.79	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.097	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	60	mg/kg	04-027-ICP9	
Aluminium	0.67	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.95	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	34	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 535983

Sample Number:	021760967	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.31	mg/kg	04-024-ICP6	DTPA
Zinc	0.12	mg/kg	04-024-ICP6	DTPA
Manganese	6.8	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.067	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.08		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 535982

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760968	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	26	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.066		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	6.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.065	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.73	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.077	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.32	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.46	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	22	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535982

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SOIL ANALYSIS REPORT

Report Number: 535981

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760969	**Paddock Name:**	OM768	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	4			
Available Potassium ^	20	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.062		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	4.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.052	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.51	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.14	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	7.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 535981

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SOIL ANALYSIS REPORT

Report Number: 535980

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760970	**Paddock Name:**	OM768, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	54	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	7.9	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	56	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.35	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.69	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	68	mg/kg	04-027-ICP9	
Aluminium	0.75	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.40	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	16	%	04-026-ICP8	Calculation
Aluminium % of Cations	17	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.14		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 535980

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SOIL ANALYSIS REPORT

Report Number: 536019

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760961	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	8.7	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	110	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	15	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	46	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	86		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.082	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	38	mg/kg	04-027-ICP9	
Aluminium	0.42	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.27	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	9.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536019

Sample Number:	021760961	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.22	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.0	mg/kg	04-024-ICP6	DTPA
Zinc	2.1	mg/kg	04-024-ICP6	DTPA
Manganese	31	mg/kg	04-024-ICP6	DTPA
Iron	440	mg/kg	04-024-ICP6	DTPA
Boron	0.31	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.53		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536020

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760962	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	68	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.066		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	5.2	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	9.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	29	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	90		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.78	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.075	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	44	mg/kg	04-027-ICP9	
Aluminium	0.49	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.33	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	15	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536020

Sample Number:	021760962	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.92	mg/kg	04-024-ICP6	DTPA
Zinc	0.79	mg/kg	04-024-ICP6	DTPA
Manganese	20	mg/kg	04-024-ICP6	DTPA
Iron	360	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.32		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536021

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021760963	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	24	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.069	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536021

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SOIL ANALYSIS REPORT

Report Number: 536022

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760964	**Paddock Name:**	OM769	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	19	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.77	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.050	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	20	mg/kg	04-027-ICP9	
Aluminium	0.23	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.95	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536022

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SOIL ANALYSIS REPORT

Report Number: 536023

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760965	**Paddock Name:**	OM769, 60 to 100 cm	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	61	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.77	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	110	mg/kg	04-027-ICP9	
Aluminium	1.2	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.48	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	10	%	04-026-ICP8	Calculation
Aluminium % of Cations	16	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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8 South Rd, Werribee Vic 3030
Toll-free: 1800 803 453 Fax: (61 3) 9974 0699
Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 536023

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SOIL ANALYSIS REPORT

Report Number: 521085

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751506	**Paddock Name:**	OM771 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	92	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.091		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	7.3	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	77		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.069	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	31	mg/kg	04-027-ICP9	
Aluminium	0.35	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.19	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	11	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521085

Sample Number:	021751506	**Paddock Name:**	OM771 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.47	mg/kg	04-024-ICP6	DTPA
Zinc	0.33	mg/kg	04-024-ICP6	DTPA
Manganese	10	mg/kg	04-024-ICP6	DTPA
Iron	330	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521086

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751405	**Paddock Name:**	OM771 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.090		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	6.9	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.79	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	10	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	51		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.065	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	29	mg/kg	04-027-ICP9	
Aluminium	0.32	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.33	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521086

Sample Number:	021751405	**Paddock Name:**	OM771 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	17	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.26	mg/kg	04-024-ICP6	DTPA
Zinc	0.13	mg/kg	04-024-ICP6	DTPA
Manganese	6.4	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.13	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521087

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751404	**Paddock Name:**	OM771 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	51	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	7.6	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.66	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.068	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	35	mg/kg	04-027-ICP9	
Aluminium	0.39	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521087

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SOIL ANALYSIS REPORT

Report Number: 521088

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751403	**Paddock Name:**	OM771 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	95	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	23	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	7.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.24	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.71	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	100	mg/kg	04-027-ICP9	
Aluminium	1.1	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.11	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	36	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.75		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521088

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SOIL ANALYSIS REPORT

Report Number: 521089

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751402	**Paddock Name:**	OM771 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	66	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	9.1	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.057		04-026-ICP8	Calculated
Magnesium % of Cations	65	%	04-026-ICP8	Calculation
Potassium % of Cations	4.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.77	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.69	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.30	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	49	mg/kg	04-027-ICP9	
Aluminium	0.55	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.98	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	7.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.14		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521089

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SOIL ANALYSIS REPORT

Report Number: 521063

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751401	**Paddock Name:**	OM772 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.23		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	15	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	20	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	8.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	54		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.38	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.035	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	49	mg/kg	04-027-ICP9	
Aluminium	0.55	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.57	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	21	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521063

Sample Number:	021751401	**Paddock Name:**	OM772 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.87	mg/kg	04-024-ICP6	DTPA
Zinc	0.75	mg/kg	04-024-ICP6	DTPA
Manganese	78	mg/kg	04-024-ICP6	DTPA
Iron	270	mg/kg	04-024-ICP6	DTPA
Boron	0.25	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	57.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	31.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	6.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521064

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751400	**Paddock Name:**	OM772 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.21		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.67	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	35	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	39		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.92	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.43	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	42	mg/kg	04-027-ICP9	
Aluminium	0.46	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.13	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	22	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521064

Sample Number:	021751400	**Paddock Name:**	OM772 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	20	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.73	mg/kg	04-024-ICP6	DTPA
Zinc	0.38	mg/kg	04-024-ICP6	DTPA
Manganese	93	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	55.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	30.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521065

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751399	**Paddock Name:**	OM772 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.063		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.65	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.042	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	16	mg/kg	04-027-ICP9	
Aluminium	0.17	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	4.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	53.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	31.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521065

Sample Number:	021751399	**Paddock Name:**	OM772 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521066

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

Sample Number:	021751398	**Paddock Name:**	OM772 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	43	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.080	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.37	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	50.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	26.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	20.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521066

Sample Number:	021751398	**Paddock Name:**	OM772 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521067

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751397	**Paddock Name:**	OM772 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	54	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	50	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.48	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.2	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.89		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	44.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	24.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	27.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521067

Sample Number:	021751397	**Paddock Name:**	OM772 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	7-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 536024

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751391	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	85	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	37	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	6.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	84	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	10	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	82		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.61	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.068	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	110	mg/kg	04-027-ICP9	
Aluminium	1.3	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.42	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	37	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536024

Sample Number:	021751391	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.16	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.38	mg/kg	04-024-ICP6	DTPA
Manganese	34	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.29	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.18		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536025

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751390	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	45	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.077		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.94	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	46	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	65		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.43	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.062	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	81	mg/kg	04-027-ICP9	
Aluminium	0.90	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.53	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	36	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536025

Sample Number:	021751390	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.17	mg/kg	04-024-ICP6	DTPA
Manganese	25	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536026

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751389	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	2			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	25	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.68	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	32	mg/kg	04-027-ICP9	
Aluminium	0.36	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.51	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536026

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SOIL ANALYSIS REPORT

Report Number: 536027

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751388	**Paddock Name:**	OM774	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.035		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.92	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.082	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	24	mg/kg	04-027-ICP9	
Aluminium	0.27	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.05	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536027

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SOIL ANALYSIS REPORT

Report Number: 536028

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751386	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	42	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	45	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	71		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.096	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.97	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.38	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.066	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	69	mg/kg	04-027-ICP9	
Aluminium	0.77	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.28	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	34	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536028

Sample Number:	021751386	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.4	mg/kg	04-024-ICP6	DTPA
Zinc	0.20	mg/kg	04-024-ICP6	DTPA
Manganese	22	mg/kg	04-024-ICP6	DTPA
Iron	220	mg/kg	04-024-ICP6	DTPA
Boron	0.12	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.12		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536054

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751385	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	43	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	4.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.73	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	33	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.71	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.6	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	54		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.45	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.062	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	46	mg/kg	04-027-ICP9	
Aluminium	0.51	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.25	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536054

Sample Number:	021751385	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.15	mg/kg	04-024-ICP6	DTPA
Manganese	21	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.10	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.12		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536055

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751384	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	31	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	9.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.078	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.82	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.053	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	14	mg/kg	04-027-ICP9	
Aluminium	0.16	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536055

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SOIL ANALYSIS REPORT

Report Number: 536056

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751383	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	67	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	45	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.67	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.15	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.34	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536056

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SOIL ANALYSIS REPORT

Report Number: 536057

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751387	**Paddock Name:**	OM775	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	52	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.75	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.7	mg/kg	04-027-ICP9	
Aluminium	0.11	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.58	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.78		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536057

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SOIL ANALYSIS REPORT

Report Number: 536058

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751382	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	39	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	31	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	40	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	59		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.099	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.2	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.70	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536058

Sample Number:	021751382	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.5	mg/kg	04-024-ICP6	DTPA
Zinc	0.39	mg/kg	04-024-ICP6	DTPA
Manganese	15	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.12	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.09		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536029

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751381	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	30	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.65	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	39	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.86	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	47		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.078	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.33	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536029

Sample Number:	021751381	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.21	mg/kg	04-024-ICP6	DTPA
Manganese	7.6	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.085	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.11		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536035

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751380	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	35	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	48	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	47	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.64	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.090	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.96	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536035

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SOIL ANALYSIS REPORT

Report Number: 536036

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751379	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	2			
Available Potassium ^	55	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	35	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	60	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.98	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.82	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.57		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536036

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SOIL ANALYSIS REPORT

Report Number: 536037

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751378	**Paddock Name:**	OM776	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	54	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	28	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	67	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.76	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.14	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.41		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536037

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SOIL ANALYSIS REPORT

Report Number: 536038

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751377	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	97	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	11	%	04-026-ICP8	Calculation
Potassium % of Cations	6.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	3.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	100	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	4.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	11	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	110		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.049	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	160	mg/kg	04-027-ICP9	
Aluminium	1.8	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	43	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536038

Sample Number:	021751377	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	4.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.19	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.6	mg/kg	04-024-ICP6	DTPA
Zinc	0.45	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.33	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.14		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536039

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751376	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.77	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	48	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.84	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	12	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	50		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.084	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.59	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.036	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	25	mg/kg	04-027-ICP9	
Aluminium	0.28	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536039

Sample Number:	021751376	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.096	mg/kg	04-024-ICP6	DTPA
Manganese	40	mg/kg	04-024-ICP6	DTPA
Iron	69	mg/kg	04-024-ICP6	DTPA
Boron	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.24		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536040

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751375	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	79	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	2.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	18	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.085	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.74	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.033	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.03	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.81	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	4.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536040

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SOIL ANALYSIS REPORT

Report Number: 536041

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751374	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.035	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.00	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.50	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536041

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SOIL ANALYSIS REPORT

Report Number: 536052

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751373	**Paddock Name:**	OM777	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	68	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.56	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536052

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SOIL ANALYSIS REPORT

Report Number: 536053

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751372	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.073		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	6.3	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	140	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	18	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	54		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.72	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	32	mg/kg	04-027-ICP9	
Aluminium	0.35	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.46	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.9	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536053

Sample Number:	021751372	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.24	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.63	mg/kg	04-024-ICP6	DTPA
Manganese	55	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.35	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.33		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536030

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751371	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	57	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	76	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	4.4	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.84	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	57	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	40		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.028	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.4	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.29	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.84	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536030

Sample Number:	021751371	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.23	mg/kg	04-024-ICP6	DTPA
Manganese	22	mg/kg	04-024-ICP6	DTPA
Iron	78	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.19		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536031

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751370	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	48	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	79	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	38	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.63	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.026	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.68	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.71	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	4.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 536031

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SOIL ANALYSIS REPORT

Report Number: 536032

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751369	**Paddock Name:**	OM778	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	97	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.79	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.61	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536032

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SOIL ANALYSIS REPORT

Report Number: 521068

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751363	**Paddock Name:**	OM780 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	67	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	30	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.079		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	4.3	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	18	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.3	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	190		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.94	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.093	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	140	mg/kg	04-027-ICP9	
Aluminium	1.5	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.95	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	39	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521068

Sample Number:	021751363	**Paddock Name:**	OM780 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	18	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.40	mg/kg	04-024-ICP6	DTPA
Zinc	0.50	mg/kg	04-024-ICP6	DTPA
Manganese	11	mg/kg	04-024-ICP6	DTPA
Iron	340	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.0		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521069

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751362	**Paddock Name:**	OM780 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	24	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.089		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	4.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	26	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	190		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.91	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.079	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	140	mg/kg	04-027-ICP9	
Aluminium	1.6	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.63	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	44	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521069

Sample Number:	021751362	**Paddock Name:**	OM780 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	0.97		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	36	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.40	mg/kg	04-024-ICP6	DTPA
Zinc	0.282	mg/kg	04-024-ICP6	DTPA
Manganese	6.4	mg/kg	04-024-ICP6	DTPA
Iron	270	mg/kg	04-024-ICP6	DTPA
Boron	0.34	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.0		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521070

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751361	**Paddock Name:**	OM780 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	51	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	13	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.84	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.42	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	180	mg/kg	04-027-ICP9	
Aluminium	2.0	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.28	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	60	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.60		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521070

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SOIL ANALYSIS REPORT

Report Number: 521071

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751360	**Paddock Name:**	OM780 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	5.3	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.068	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	240	mg/kg	04-027-ICP9	
Aluminium	2.6	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.33	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	61	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.19		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521071

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SOIL ANALYSIS REPORT

Report Number: 521072

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751359	**Paddock Name:**	OM780 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	90	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	4.2	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.086		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.82	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	340	mg/kg	04-027-ICP9	
Aluminium	3.8	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.75	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	56	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.12		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521072

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SOIL ANALYSIS REPORT

Report Number: 521073

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760800	**Paddock Name:**	OM780 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	87	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	6.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	26	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	4.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	8.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	19	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	44		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.22	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.39	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	25	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521073

Sample Number:	021760800	**Paddock Name:**	OM780 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	7.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.15	dS/m	04-031-PH	1:5 soil/water
Chloride	27	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.48	mg/kg	04-024-ICP6	DTPA
Zinc	1.1	mg/kg	04-024-ICP6	DTPA
Manganese	37	mg/kg	04-024-ICP6	DTPA
Iron	120	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.4		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521074

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760801	**Paddock Name:**	OM781 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	75	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	29	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	8.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	3.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.76	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	49	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	51		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.19	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	50	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521074

Sample Number:	021760801	**Paddock Name:**	OM781 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	9.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.48	dS/m	04-031-PH	1:5 soil/water
Chloride	460	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.74	mg/kg	04-024-ICP6	DTPA
Zinc	0.27	mg/kg	04-024-ICP6	DTPA
Manganese	21	mg/kg	04-024-ICP6	DTPA
Iron	29	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	0.042	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521075

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760802	**Paddock Name:**	OM781 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	4			
Available Potassium ^	34	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	18	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	1.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	8.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.70	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.087	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.96	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.38	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	61	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.87		04-026-ICP8	Calculation
pH (1:5 Water)	9.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.32	dS/m	04-031-PH	1:5 soil/water
Chloride	280	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521075

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SOIL ANALYSIS REPORT

Report Number: 521076

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760803	**Paddock Name:**	OM781 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	17	%	04-026-ICP8	Calculation
Emerson Class ^	1			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	1.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	8.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.98	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.61	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	5.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	10.2	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	54	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.59		04-026-ICP8	Calculation
pH (1:5 Water)	9.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.30	dS/m	04-031-PH	1:5 soil/water
Chloride	140	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 521090

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760804	**Paddock Name:**	OM781 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	4			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	4			
20 hour remoulded aggregate ^	4			
Available Potassium ^	67	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	16	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.021		04-026-ICP8	Calculated
Magnesium % of Cations	45	%	04-026-ICP8	Calculation
Potassium % of Cations	1.3	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	8.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.77	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.66	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	4.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	13.1	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	38	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.36		04-026-ICP8	Calculation
pH (1:5 Water)	9.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.19	dS/m	04-031-PH	1:5 soil/water
Chloride	68	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521090

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SOIL ANALYSIS REPORT

Report Number: 521091

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760799	**Paddock Name:**	OM782 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	390	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.34		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	24	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	26	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	51		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.83	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.073	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	18	mg/kg	04-027-ICP9	
Aluminium	0.20	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.21	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521091

Sample Number:	021760799	**Paddock Name:**	OM782 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	20	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	1.3	mg/kg	04-024-ICP6	DTPA
Manganese	80	mg/kg	04-024-ICP6	DTPA
Iron	230	mg/kg	04-024-ICP6	DTPA
Boron	0.57	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521092

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760798	**Paddock Name:**	OM782 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	390	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.25		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	19	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.57	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	9.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	85		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.033	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.23	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.20	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.63	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521092

Sample Number:	021760798	**Paddock Name:**	OM782 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	17	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.5	mg/kg	04-024-ICP6	DTPA
Zinc	0.15	mg/kg	04-024-ICP6	DTPA
Manganese	38	mg/kg	04-024-ICP6	DTPA
Iron	26	mg/kg	04-024-ICP6	DTPA
Boron	0.60	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521093

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760797	**Paddock Name:**	OM782 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	260	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.15		04-026-ICP8	Calculated
Magnesium % of Cations	27	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.67	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.041	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.29	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.77	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521093

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SOIL ANALYSIS REPORT

Report Number: 521094

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760796	**Paddock Name:**	OM782 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.095		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	8.4	%	04-026-ICP8	Calculation
Slaking ^	2			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.95	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.40	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.050	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.71	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521094

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SOIL ANALYSIS REPORT

Report Number: 521095

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760795	**Paddock Name:**	OM782 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.071		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	6.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.051	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521095

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SOIL ANALYSIS REPORT

Report Number: 521096

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760794	**Paddock Name:**	OM783 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	240	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.19		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	14	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	61	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	39		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.61	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.69	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	31	mg/kg	04-027-ICP9	
Aluminium	0.34	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.27	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521096

Sample Number:	021760794	**Paddock Name:**	OM783 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.73	mg/kg	04-024-ICP6	DTPA
Zinc	1.7	mg/kg	04-024-ICP6	DTPA
Manganese	60	mg/kg	04-024-ICP6	DTPA
Iron	250	mg/kg	04-024-ICP6	DTPA
Boron	0.47	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	72.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	14.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521097

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021760793	**Paddock Name:**	OM783 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	88	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	9.0	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.94	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	57	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.93	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	37		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.39	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	37	mg/kg	04-027-ICP9	
Aluminium	0.41	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.51	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	16	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521097

Sample Number:	021760793	**Paddock Name:**	OM783 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.12	dS/m	04-031-PH	1:5 soil/water
Chloride	25	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.62	mg/kg	04-024-ICP6	DTPA
Zinc	0.39	mg/kg	04-024-ICP6	DTPA
Manganese	46	mg/kg	04-024-ICP6	DTPA
Iron	160	mg/kg	04-024-ICP6	DTPA
Boron	0.28	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	55.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	30.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521098

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760792	**Paddock Name:**	OM783 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	2			
20 hour natural aggregate	1			
20 hour remoulded aggregate	2			
Available Potassium	45	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.059		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	5.7	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	28	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	8.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.064	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.01	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	20	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	57.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	28.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	11.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521098

Sample Number:	021760792	**Paddock Name:**	OM783 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521099

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760791	**Paddock Name:**	OM783 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.043		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	4.0	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.64	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.32	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.94	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	39.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	11.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	47.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521099

Sample Number:	021760791	**Paddock Name:**	OM783 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521100

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021760955	**Paddock Name:**	OM783 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	78	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.024		04-026-ICP8	Calculated
Magnesium % of Cations	50	%	04-026-ICP8	Calculation
Potassium % of Cations	2.3	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.75	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.91		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	35.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	51.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521100

Sample Number:	021760955	**Paddock Name:**	OM783 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521101

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751176	**Paddock Name:**	OM784 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.075		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	98		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.080	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	46	mg/kg	04-027-ICP9	
Aluminium	0.51	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.06	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	17	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521101

Sample Number:	021751176	**Paddock Name:**	OM784 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	27	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.3	mg/kg	04-024-ICP6	DTPA
Zinc	0.42	mg/kg	04-024-ICP6	DTPA
Manganese	21	mg/kg	04-024-ICP6	DTPA
Iron	440	mg/kg	04-024-ICP6	DTPA
Boron	0.26	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	59.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	27.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521102

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751175	**Paddock Name:**	OM784 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	47	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	16	%	04-026-ICP8	Calculation
Potassium % of Cations	6.8	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.81	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	17	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.95	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	83		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.075	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	57	mg/kg	04-027-ICP9	
Aluminium	0.63	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	27	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521102

Sample Number:	021751175	**Paddock Name:**	OM784 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	24	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.1	mg/kg	04-024-ICP6	DTPA
Zinc	0.17	mg/kg	04-024-ICP6	DTPA
Manganese	26	mg/kg	04-024-ICP6	DTPA
Iron	230	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	63.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	20.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	13.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521103

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751174	**Paddock Name:**	OM784 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	46	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.040		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.94	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	26	mg/kg	04-027-ICP9	
Aluminium	0.29	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.47	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	53.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	17.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521103

Sample Number:	021751174	**Paddock Name:**	OM784 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521104

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751173	**Paddock Name:**	OM784 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	61	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	46	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	16	mg/kg	04-027-ICP9	
Aluminium	0.17	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.00	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.5	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.97		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	35.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	13.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	50.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521104

Sample Number:	021751173	**Paddock Name:**	OM784 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521105

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751172	**Paddock Name:**	OM784 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	60	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	37	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.020		04-026-ICP8	Calculated
Magnesium % of Cations	57	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.75	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	4.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.77	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.64		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	57.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521105

Sample Number:	021751172	**Paddock Name:**	OM784 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521106

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751171	**Paddock Name:**	OM785 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	59	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.089		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	5.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.95	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	23	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	60		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.045	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	73	mg/kg	04-027-ICP9	
Aluminium	0.81	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.68	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	30	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521106

Sample Number:	021751171	**Paddock Name:**	OM785 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.6	mg/kg	04-024-ICP6	DTPA
Zinc	0.61	mg/kg	04-024-ICP6	DTPA
Manganese	80	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.18	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521107

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751170	**Paddock Name:**	OM785 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	44	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.82	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	39	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	62		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.92	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	34	mg/kg	04-027-ICP9	
Aluminium	0.38	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521107

Sample Number:	021751170	**Paddock Name:**	OM785 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	0.40	mg/kg	04-024-ICP6	DTPA
Manganese	80	mg/kg	04-024-ICP6	DTPA
Iron	96	mg/kg	04-024-ICP6	DTPA
Boron	0.19	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521108

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751169	**Paddock Name:**	OM785 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	17	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	11	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.070	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.12	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521108

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SOIL ANALYSIS REPORT

Report Number: 521109

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751168	**Paddock Name:**	OM785 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	60	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	40	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.65	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.078	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.56	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521109

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SOIL ANALYSIS REPORT

Report Number: 521110

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751166	**Paddock Name:**	OM786 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.088		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	6.5	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	37	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	84		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.67	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.060	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	60	mg/kg	04-027-ICP9	
Aluminium	0.66	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.93	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	17	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521110

Sample Number:	021751166	**Paddock Name:**	OM786 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.5	mg/kg	04-024-ICP6	DTPA
Zinc	0.39	mg/kg	04-024-ICP6	DTPA
Manganese	140	mg/kg	04-024-ICP6	DTPA
Iron	130	mg/kg	04-024-ICP6	DTPA
Boron	0.36	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521111

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751165	**Paddock Name:**	OM786 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.068		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	5.4	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.95	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	41	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	94		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.044	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	51	mg/kg	04-027-ICP9	
Aluminium	0.56	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.92	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	14	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521111

Sample Number:	021751165	**Paddock Name:**	OM786 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.5	mg/kg	04-024-ICP6	DTPA
Zinc	0.24	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	59	mg/kg	04-024-ICP6	DTPA
Boron	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521112

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751164	**Paddock Name:**	OM786 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	84	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	71	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.040		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.89	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	20	mg/kg	04-027-ICP9	
Aluminium	0.22	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.82	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521112

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SOIL ANALYSIS REPORT

Report Number: 521113

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751163	**Paddock Name:**	OM786 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.032		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.82	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	6.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.08	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.68	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521113

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SOIL ANALYSIS REPORT

Report Number: 521114

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751162	**Paddock Name:**	OM786 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	90	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.83	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.045	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.71	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.58	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521114

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SOIL ANALYSIS REPORT

Report Number: 521115

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751161	**Paddock Name:**	OM787 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	180	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.9	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	93	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	4.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	10	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	51		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.63	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.092	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.24	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.65	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	6.5	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521115

Sample Number:	021751161	**Paddock Name:**	OM787 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.5		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.19	dS/m	04-031-PH	1:5 soil/water
Chloride	21	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.57	mg/kg	04-024-ICP6	DTPA
Zinc	0.78	mg/kg	04-024-ICP6	DTPA
Manganese	30	mg/kg	04-024-ICP6	DTPA
Iron	350	mg/kg	04-024-ICP6	DTPA
Boron	0.34	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	62.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521116

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751160	**Paddock Name:**	OM787 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	140	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	18	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	96	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	10	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	50		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.090	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	24	mg/kg	04-027-ICP9	
Aluminium	0.26	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.43	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.7	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521116

Sample Number:	021751160	**Paddock Name:**	OM787 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.4		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.19	dS/m	04-031-PH	1:5 soil/water
Chloride	38	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.54	mg/kg	04-024-ICP6	DTPA
Zinc	0.52	mg/kg	04-024-ICP6	DTPA
Manganese	23	mg/kg	04-024-ICP6	DTPA
Iron	350	mg/kg	04-024-ICP6	DTPA
Boron	0.29	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	58.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	9.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521174

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751159	**Paddock Name:**	OM787 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	2			
2 hour remoulded aggregate	2			
20 hour natural aggregate	2			
20 hour remoulded aggregate	2			
Available Potassium	72	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.14		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	17	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.95	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.061	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	13	mg/kg	04-027-ICP9	
Aluminium	0.14	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.70	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	52.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	33.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	10.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521174

Sample Number:	021751159	**Paddock Name:**	OM787 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521175

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751158	**Paddock Name:**	OM787 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.043		04-026-ICP8	Calculated
Magnesium % of Cations	43	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	8.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	35	mg/kg	04-027-ICP9	
Aluminium	0.39	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.80	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.0	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	44.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	28.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	26.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521175

Sample Number:	021751158	**Paddock Name:**	OM787 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521176

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751157	**Paddock Name:**	OM787 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	42	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	31	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	55	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	12	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.85	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.13	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.81	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	5.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	4.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.59		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	49.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	30.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	18.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521176

Sample Number:	021751157	**Paddock Name:**	OM787 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 536033

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751155	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	41	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	30	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.067		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	4.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	4.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	150		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.49	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	150	mg/kg	04-027-ICP9	
Aluminium	1.7	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	49	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536033

Sample Number:	021751155	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	30	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.81	mg/kg	04-024-ICP6	DTPA
Zinc	0.22	mg/kg	04-024-ICP6	DTPA
Manganese	14	mg/kg	04-024-ICP6	DTPA
Iron	200	mg/kg	04-024-ICP6	DTPA
Boron	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.09		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536034

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751154	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	47	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	26	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.088		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.1	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	140		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	160	mg/kg	04-027-ICP9	
Aluminium	1.8	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.41	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	53	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536034

Sample Number:	021751154	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.72	mg/kg	04-024-ICP6	DTPA
Zinc	0.18	mg/kg	04-024-ICP6	DTPA
Manganese	10	mg/kg	04-024-ICP6	DTPA
Iron	170	mg/kg	04-024-ICP6	DTPA
Boron	0.14	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.04		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536059

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751153	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	23	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	12	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.083		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	2.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.7	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.058	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.37	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	180	mg/kg	04-027-ICP9	
Aluminium	2.0	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.86	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	69	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.89		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536059

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SOIL ANALYSIS REPORT

Report Number: 536060

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751152	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	3			
Available Potassium ^	19	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	5.4	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.096		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	1.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.14	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.36	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	170	mg/kg	04-027-ICP9	
Aluminium	1.9	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	72	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.39		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536060

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SOIL ANALYSIS REPORT

Report Number: 536061

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751151	**Paddock Name:**	OM788	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	32	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	1.4	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.070		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	1.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.082	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.071	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	290	mg/kg	04-027-ICP9	
Aluminium	3.2	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.06	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	11	%	04-026-ICP8	Calculation
Aluminium % of Cations	64	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.065		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536061

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SOIL ANALYSIS REPORT

Report Number: 536062

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751156	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	36	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.039		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	52	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	100		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.093	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.88	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.15	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	89	mg/kg	04-027-ICP9	
Aluminium	0.99	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.56	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	28	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536062

Sample Number:	021751156	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.39	mg/kg	04-024-ICP6	DTPA
Zinc	0.29	mg/kg	04-024-ICP6	DTPA
Manganese	8.2	mg/kg	04-024-ICP6	DTPA
Iron	310	mg/kg	04-024-ICP6	DTPA
Boron	0.17	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.08		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536063

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751148	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	30	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	47	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.035		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.1	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	52	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	21	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	89		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.076	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.77	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.080	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	63	mg/kg	04-027-ICP9	
Aluminium	0.69	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.07	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536063

Sample Number:	021751148	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.33	mg/kg	04-024-ICP6	DTPA
Zinc	0.20	mg/kg	04-024-ICP6	DTPA
Manganese	9.5	mg/kg	04-024-ICP6	DTPA
Iron	290	mg/kg	04-024-ICP6	DTPA
Boron	0.14	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.24		04-020-ICP17	Calculated: Col P / PBI

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Enquiry: lab.feedback@incitecpivot.com.au

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SOIL ANALYSIS REPORT

Report Number: 536064

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751147	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	3			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	3			
Available Potassium ^	23	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	3.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.059	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.73	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.55	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.054	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	17	mg/kg	04-027-ICP9	
Aluminium	0.19	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.58	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	3.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	12	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536064

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SOIL ANALYSIS REPORT

Report Number: 536065

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751146	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	4			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	4			
Available Potassium ^	26	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	15	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	62	%	04-026-ICP8	Calculation
Potassium % of Cations	1.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.067	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	51	mg/kg	04-027-ICP9	
Aluminium	0.56	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.47	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	4.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	16	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.25		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536065

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SOIL ANALYSIS REPORT

Report Number: 536066

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751145	**Paddock Name:**	OM789	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	2			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	2			
Available Potassium ^	47	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	6.5	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.020		04-026-ICP8	Calculated
Magnesium % of Cations	75	%	04-026-ICP8	Calculation
Potassium % of Cations	1.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.47	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	5.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.45	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	68	mg/kg	04-027-ICP9	
Aluminium	0.76	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.32	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	6.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	10	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.085		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536066

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SOIL ANALYSIS REPORT

Report Number: 521177

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751144	**Paddock Name:**	OM790 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	210	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	10	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	2.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	17	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	3.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.5	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	44		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.53	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.025	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	12	mg/kg	04-027-ICP9	
Aluminium	0.14	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.13	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.49	%	04-026-ICP8	Calculation
Aluminium % of Cations	2.6	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521177

Sample Number:	021751144	**Paddock Name:**	OM790 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.84	mg/kg	04-024-ICP6	DTPA
Zinc	1.6	mg/kg	04-024-ICP6	DTPA
Manganese	12	mg/kg	04-024-ICP6	DTPA
Iron	180	mg/kg	04-024-ICP6	DTPA
Boron	0.36	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	9.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	49.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	30.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521178

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751143	**Paddock Name:**	OM790 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.082		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	7.2	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Yellow-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.74	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	20	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	25		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.27	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.063	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.3	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521178

Sample Number:	021751143	**Paddock Name:**	OM790 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	0.83		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.57	mg/kg	04-024-ICP6	DTPA
Zinc	0.24	mg/kg	04-024-ICP6	DTPA
Manganese	2.8	mg/kg	04-024-ICP6	DTPA
Iron	75	mg/kg	04-024-ICP6	DTPA
Boron	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	6.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	29.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521117

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751142	**Paddock Name:**	OM790 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	1			
20 hour natural aggregate	0			
20 hour remoulded aggregate	1			
Available Potassium	260	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	20	%	04-026-ICP8	Calculation
Emerson Class	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.076		04-026-ICP8	Calculated
Magnesium % of Cations	72	%	04-026-ICP8	Calculation
Potassium % of Cations	7.0	%	04-026-ICP8	Calculation
Slaking	1			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.66	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	6.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	9.1	mg/kg	04-027-ICP9	
Aluminium	0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.52	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.40	%	04-026-ICP8	Calculation
Aluminium % of Cations	1.1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.28		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	5.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	42.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521117

Sample Number:	021751142	**Paddock Name:**	OM790 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521118

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751141	**Paddock Name:**	OM790 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	0			
20 hour natural aggregate	0			
20 hour remoulded aggregate	0			
Available Potassium	190	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	14	%	04-026-ICP8	Calculation
Emerson Class	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.056		04-026-ICP8	Calculated
Magnesium % of Cations	81	%	04-026-ICP8	Calculation
Potassium % of Cations	5.2	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.50	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	7.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.029	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.60	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.30	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.17		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	1.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	34.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	40.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521118

Sample Number:	021751141	**Paddock Name:**	OM790 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521179

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751140	**Paddock Name:**	OM790 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	0			
2 hour remoulded aggregate	1			
20 hour natural aggregate	0			
20 hour remoulded aggregate	1			
Available Potassium	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	7.7	%	04-026-ICP8	Calculation
Emerson Class	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	89	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	6.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.34	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.041	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	13.2	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.31	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.083		04-026-ICP8	Calculation
pH (1:5 Water)	7.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	4.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	38.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	34.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521179

Sample Number:	021751140	**Paddock Name:**	OM790 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 536067

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751127	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	68	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	49	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.075		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	5.0	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.0	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	82	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	6.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	19	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	88		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.58	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.088	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	81	mg/kg	04-027-ICP9	
Aluminium	0.90	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.45	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	26	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536067

Sample Number:	021751127	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.16	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.39	mg/kg	04-024-ICP6	DTPA
Zinc	0.51	mg/kg	04-024-ICP6	DTPA
Manganese	36	mg/kg	04-024-ICP6	DTPA
Iron	150	mg/kg	04-024-ICP6	DTPA
Boron	0.35	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.22		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536068

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751150	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	45	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	23	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.081		04-026-ICP8	Calculated
Magnesium % of Cations	15	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Yellow-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.33	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	5.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	3.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	140		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.12	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.89	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.60	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.030	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	200	mg/kg	04-027-ICP9	
Aluminium	2.2	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.79	%	04-026-ICP8	Calculation
Aluminium % of Cations	57	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536068

Sample Number:	021751150	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.51	mg/kg	04-024-ICP6	DTPA
Zinc	0.12	mg/kg	04-024-ICP6	DTPA
Manganese	1.5	mg/kg	04-024-ICP6	DTPA
Iron	85	mg/kg	04-024-ICP6	DTPA
Boron	0.46	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.07		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536069

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751149	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	2			
20 hour remoulded aggregate ^	1			
Available Potassium ^	43	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	19	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.093		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.78	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.70	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.48	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.028	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	210	mg/kg	04-027-ICP9	
Aluminium	2.3	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.63	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.76	%	04-026-ICP8	Calculation
Aluminium % of Cations	64	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536069

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SOIL ANALYSIS REPORT

Report Number: 536070

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751138	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	1			
Available Potassium ^	44	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	13	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.13		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.83	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.40	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.43	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.027	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	190	mg/kg	04-027-ICP9	
Aluminium	2.1	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.12	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.87	%	04-026-ICP8	Calculation
Aluminium % of Cations	69	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.93		04-026-ICP8	Calculation
pH (1:5 Water)	5.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536070

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SOIL ANALYSIS REPORT

Report Number: 536071

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751139	**Paddock Name:**	OM791	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	3			
20 hour remoulded aggregate ^	1			
Available Potassium ^	28	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	3.1	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.040		04-026-ICP8	Calculated
Magnesium % of Cations	61	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.072	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.083	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.056	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	75	mg/kg	04-027-ICP9	
Aluminium	0.83	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.71	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	31	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.049		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536071

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SOIL ANALYSIS REPORT

Report Number: 521180

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751132	**Paddock Name:**	OM792 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.085		04-026-ICP8	Calculated
Magnesium % of Cations	15	%	04-026-ICP8	Calculation
Potassium % of Cations	5.8	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.6	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	10	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	41	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	55		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.33	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	45	mg/kg	04-027-ICP9	
Aluminium	0.50	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521180

Sample Number:	021751132	**Paddock Name:**	OM792 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.59	mg/kg	04-024-ICP6	DTPA
Zinc	0.62	mg/kg	04-024-ICP6	DTPA
Manganese	28	mg/kg	04-024-ICP6	DTPA
Iron	450	mg/kg	04-024-ICP6	DTPA
Boron	0.17	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.7		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	58.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	30.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	7.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521181

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751131	**Paddock Name:**	OM792 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	19	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.069		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	4.8	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.1	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.20	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.81	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	2.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	18		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	0.50	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.20	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	23	mg/kg	04-027-ICP9	
Aluminium	0.26	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	1.00	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	26	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521181

Sample Number:	021751131	**Paddock Name:**	OM792 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-082			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.22	mg/kg	04-024-ICP6	DTPA
Zinc	0.080	mg/kg	04-024-ICP6	DTPA
Manganese	11	mg/kg	04-024-ICP6	DTPA
Iron	64	mg/kg	04-024-ICP6	DTPA
Boron	0.060	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.3		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	59.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture ^			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521182

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751130	**Paddock Name:**	OM792 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	42	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	35	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.89	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.069	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	14	mg/kg	04-027-ICP9	
Aluminium	0.16	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.28	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.8	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	50.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	20.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	25.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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Toll-free: 1800 803 453 Fax: (61 3) 9974 0699

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SOIL ANALYSIS REPORT

Report Number: 521182

Sample Number:	021751130	**Paddock Name:**	OM792 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521183

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751129	**Paddock Name:**	OM792 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	0			
20 hour natural aggregate	1			
20 hour remoulded aggregate	0			
Available Potassium	52	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	41	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.92	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.0	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.095	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.41	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	2.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	48.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	16.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	31.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521183

Sample Number:	021751129	**Paddock Name:**	OM792 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521184

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

Sample Number:	021751128	**Paddock Name:**	OM792 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate	1			
2 hour remoulded aggregate	1			
20 hour natural aggregate	1			
20 hour remoulded aggregate	1			
Available Potassium	30	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.3	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.076	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.089	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.23	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.94		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Sand (Coarse)	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine)	53.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt	23.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay	20.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 521184

Sample Number:	021751128	**Paddock Name:**	OM792 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-064			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Texture			04-001-SANSILCLAY	Hydrometer & sieve analysis (Ca

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SOIL ANALYSIS REPORT

Report Number: 521185

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751137	**Paddock Name:**	OM793 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	54	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	54	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	60		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.41	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.52	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	<0.022	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	67	mg/kg	04-027-ICP9	
Aluminium	0.75	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.62	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	<1	%	04-026-ICP8	Calculation
Aluminium % of Cations	21	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521185

Sample Number:	021751137	**Paddock Name:**	OM793 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.7		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.2	mg/kg	04-024-ICP6	DTPA
Zinc	0.77	mg/kg	04-024-ICP6	DTPA
Manganese	87	mg/kg	04-024-ICP6	DTPA
Iron	300	mg/kg	04-024-ICP6	DTPA
Boron	0.39	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521186

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751136	**Paddock Name:**	OM793 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.084		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	7.7	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Yellow-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.63	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	13	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	7.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	72		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.41	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.038	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.33	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.72	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521186

Sample Number:	021751136	**Paddock Name:**	OM793 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	3.0	mg/kg	04-024-ICP6	DTPA
Zinc	0.11	mg/kg	04-024-ICP6	DTPA
Manganese	69	mg/kg	04-024-ICP6	DTPA
Iron	28	mg/kg	04-024-ICP6	DTPA
Boron	0.44	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521187

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751135	**Paddock Name:**	OM793 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	170	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	70	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.069		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	6.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.0	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.89	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.44	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.048	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.87	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.70	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521187

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SOIL ANALYSIS REPORT

Report Number: 521188

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751134	**Paddock Name:**	OM793 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	31	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.26	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.096	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.72	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521188

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SOIL ANALYSIS REPORT

Report Number: 521189

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751133	**Paddock Name:**	OM793 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	70	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.023		04-026-ICP8	Calculated
Magnesium % of Cations	40	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	6.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.55	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.18	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.28	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	7.2		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 521190

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751460	**Paddock Name:**	OM794 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	41	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.26		04-026-ICP8	Calculated
Magnesium % of Cations	9.7	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	2			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.8	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.4	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	57	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	16	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	85		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.38	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.29	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.026	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	98	mg/kg	04-027-ICP9	
Aluminium	1.1	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.02	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.87	%	04-026-ICP8	Calculation
Aluminium % of Cations	36	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521190

Sample Number:	021751460	**Paddock Name:**	OM794 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.1		04-026-ICP8	Calculation
pH (1:5 Water)	4.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.13	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.7	mg/kg	04-024-ICP6	DTPA
Zinc	0.74	mg/kg	04-024-ICP6	DTPA
Manganese	160	mg/kg	04-024-ICP6	DTPA
Iron	210	mg/kg	04-024-ICP6	DTPA
Boron	0.40	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521191

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751459	**Paddock Name:**	OM794 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	91	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.098		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	6.9	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.84	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	26	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	4.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.1	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.23	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.9	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.44	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.023	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	69	mg/kg	04-027-ICP9	
Aluminium	0.76	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	3.38	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.68	%	04-026-ICP8	Calculation
Aluminium % of Cations	23	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521191

Sample Number:	021751459	**Paddock Name:**	OM794 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	4.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.3	mg/kg	04-024-ICP6	DTPA
Zinc	0.35	mg/kg	04-024-ICP6	DTPA
Manganese	110	mg/kg	04-024-ICP6	DTPA
Iron	110	mg/kg	04-024-ICP6	DTPA
Boron	0.34	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521192

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751458	**Paddock Name:**	OM794 15-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	98	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.036		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.8	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	1.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.047	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.16	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.65	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 521193

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751457	**Paddock Name:**	OM794 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	81	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	60	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.68	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.21	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.3	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.057	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	7.09	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.80	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521193

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SOIL ANALYSIS REPORT

Report Number: 521194

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751456	**Paddock Name:**	OM794 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	62	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.025		04-026-ICP8	Calculated
Magnesium % of Cations	56	%	04-026-ICP8	Calculation
Potassium % of Cations	2.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.74	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.83	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.16	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.7	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.10	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	6.65	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.73		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521194

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SOIL ANALYSIS REPORT

Report Number: 521195

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751465	**Paddock Name:**	OM795 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	67	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	62	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.079		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	6.5	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.83	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	5.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.7	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	47		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.17	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.059	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	21	mg/kg	04-027-ICP9	
Aluminium	0.23	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.64	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521195

Sample Number:	021751465	**Paddock Name:**	OM795 0-5	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	Soluble Chloride
Copper	2.9	mg/kg	04-024-ICP6	DTPA
Zinc	0.51	mg/kg	04-024-ICP6	DTPA
Manganese	62	mg/kg	04-024-ICP6	DTPA
Iron	180	mg/kg	04-024-ICP6	DTPA
Boron	0.12	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.1		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521196

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751464	**Paddock Name:**	OM795 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	41	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	65	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.054		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.36	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	1.8	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	25		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.5	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.54	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.037	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	11	mg/kg	04-027-ICP9	
Aluminium	0.12	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.32	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	5.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 521196

Sample Number:	021751464	**Paddock Name:**	OM795 5-15	**Date Sampled:**	1-Apr-2017
Test Code:	2017-083			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	Soluble Chloride
Copper	0.93	mg/kg	04-024-ICP6	DTPA
Zinc	0.21	mg/kg	04-024-ICP6	DTPA
Manganese	29	mg/kg	04-024-ICP6	DTPA
Iron	65	mg/kg	04-024-ICP6	DTPA
Boron	0.094	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.2		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 521197

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751463	**Paddock Name:**	OM79515-30	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	52	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.060		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	5.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	7.4	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.87	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	1.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.56	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.046	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	2.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

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SOIL ANALYSIS REPORT

Report Number: 521198

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager
NATA Accredited Laboratory Number: 11958

Sample Number:	021751462	**Paddock Name:**	OM795 30-60	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.58	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.27	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	5.6	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.098	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	9.12	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521199

Sustainable Soils Management P/L
PO Box 130
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Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751461	**Paddock Name:**	OM795 60-100	**Date Sampled:**	1-Apr-2017
Test Code:	2017-065			**Date Received:**	10-Apr-2017
Purchase Order No:	MGP			**Date of Report:**	26-May-2017
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	40	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.91	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.28	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.8	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.094	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.55	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 521199

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SOIL ANALYSIS REPORT

Report Number: 536072

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751467	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	52	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.042		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	1			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	1.3	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	57	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	15	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	63		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.13	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	2.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.69	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.11	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	65	mg/kg	04-027-ICP9	
Aluminium	0.72	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.04	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	2.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	18	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536072

Sample Number:	021751467	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	3.5		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.10	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.3	mg/kg	04-024-ICP6	DTPA
Zinc	5.7	mg/kg	04-024-ICP6	DTPA
Manganese	66	mg/kg	04-024-ICP6	DTPA
Iron	190	mg/kg	04-024-ICP6	DTPA
Boron	0.28	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.24		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536073

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751466	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	37	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	83	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.019		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	1.8	%	04-026-ICP8	Calculation
Slaking ^	0			
Colour	Grey-brown		04-042-PHYS	Munsell
Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon	0.97	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	40	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	0.96	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Sulphur (KCl40)	6.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	8.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index	45		04-020-ICP17	Calculation, using Colwell P (PB
Potassium	0.094	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	4.2	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.68	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.076	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	5.09	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 536073

Sample Number:	021751466	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-083			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
Calcium/Magnesium Ratio	6.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride
Copper	1.3	mg/kg	04-024-ICP6	DTPA
Zinc	7.3	mg/kg	04-024-ICP6	DTPA
Manganese	57	mg/kg	04-024-ICP6	DTPA
Iron	100	mg/kg	04-024-ICP6	DTPA
Boron	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (extractable) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.20		04-020-ICP17	Calculated: Col P / PBI

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SOIL ANALYSIS REPORT

Report Number: 536074

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751358	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	3			
Available Potassium ^	35	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	82	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.022		04-026-ICP8	Calculated
Magnesium % of Cations	15	%	04-026-ICP8	Calculation
Potassium % of Cations	2.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	13	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.090	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	3.4	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	0.62	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.027	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	4.17	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.64	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	5.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536074

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SOIL ANALYSIS REPORT

Report Number: 536075

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory
Number: 11958

Sample Number:	021751357	**Paddock Name:**	OM796	**Date Sampled:**	24-Sep-2017
Test Code:	2017-065			**Date Received:**	26-Sep-2017
Purchase Order No:				**Date of Report:**	12-Dec-2017
Grower Name:					

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	98	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	3.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	Mineralisable Nitrogen
Potassium	0.25	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Calcium	6.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Magnesium	2.1	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Sodium	0.024	cmol(+)/kg	04-026-ICP8	Ex. Cat. Ammonium Acetate (pH
Aluminium	<9.0	mg/kg	04-027-ICP9	
Aluminium	<0.10	cmol(+)/kg	04-027-ICP9	Ex. Cat. 1M KCl
Cation Exch. Cap. (CEC)	8.47	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of Cations (ESP)	0.29	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Elect. Conductivity (EC)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	Soluble Chloride

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SOIL ANALYSIS REPORT

Report Number: 536075

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SOIL ANALYSIS REPORT

Report Number: 579209

This report supersedes Report Number 566990

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760878	**Paddock Name:**	OM838 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	3			
Available Potassium ^	550	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.65		04-026-ICP8	Calculated
Magnesium % of Cations	15	%	04-026-ICP8	Calculation
Potassium % of Cations	40	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.1	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	13	mg/kg	04-063-FIA3	
Ammonium Nitrogen	140	mg/kg	04-063-FIA3	
Sulphur (KCl40)	8.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	14	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	42		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	1.4	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.6	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.55	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	<0.022	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.57	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579209

Sample Number:	021760878	**Paddock Name:**	OM838 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.9		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	18	mg/kg	04-063-FIA3	
Copper (DTPA)	0.89	mg/kg	04-024-ICP6	
Zinc (DTPA)	1.4	mg/kg	04-024-ICP6	
Manganese (DTPA)	88	mg/kg	04-024-ICP6	
Iron (DTPA)	160	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.48	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.33		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	58.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	27.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579210

This report supersedes Report Number 566991

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760877	**Paddock Name:**	OM838 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	83	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.12		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	8.6	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.7	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.46	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	16	mg/kg	04-063-FIA3	
Ammonium Nitrogen	21	mg/kg	04-063-FIA3	
Sulphur (KCl40)	6.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.2	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	40		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.21	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.52	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.051	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	40	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.44	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.46	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579210

Sample Number:	021760877	**Paddock Name:**	OM838 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	18	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.28	dS/m	04-031-PH	1:5 soil/water
Chloride	310	mg/kg	04-063-FIA3	
Copper (DTPA)	0.73	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.19	mg/kg	04-024-ICP6	
Manganese (DTPA)	90	mg/kg	04-024-ICP6	
Iron (DTPA)	50	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.24	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	15.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579212

This report supersedes Report Number 566992

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760876	**Paddock Name:**	OM838 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	85	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.090		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	6.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	
Ammonium Nitrogen	3.1	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.22	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.64	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.059	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	58	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.64	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	19	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	4.9		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.14	dS/m	04-031-PH	1:5 soil/water
Chloride	120	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	32.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579212

Sample Number:	021760876	**Paddock Name:**	OM838 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	24.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579215

This report supersedes Report Number 566993

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760875	**Paddock Name:**	OM838 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	65	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	3.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.17	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.9	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.11	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.30	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579215

Sample Number:	021760875	**Paddock Name:**	OM838 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	34.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579217

This report supersedes Report Number 566994

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760874	**Paddock Name:**	OM838 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	74	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	55	%	04-026-ICP8	Calculation
Potassium % of Cations	4.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.2	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.19	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.6	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.3	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.075	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.21	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.70		04-026-ICP8	Calculation
pH (1:5 Water)	6.9		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	5.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579217

Sample Number:	021760874	**Paddock Name:**	OM838 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	26.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579221

This report supersedes Report Number 566995

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760224	**Paddock Name:**	OM839 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	64	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.16		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.9	mg/kg	04-063-FIA3	
Ammonium Nitrogen	4.6	mg/kg	04-063-FIA3	
Sulphur (KCl40)	5.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	9.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	29		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.38	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.60	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.031	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.85	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579221

Sample Number:	021760224	**Paddock Name:**	OM839 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.0		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.59	mg/kg	04-024-ICP6	
Zinc (DTPA)	1.1	mg/kg	04-024-ICP6	
Manganese (DTPA)	16	mg/kg	04-024-ICP6	
Iron (DTPA)	210	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.32	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.31		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	62.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	24.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579224

This report supersedes Report Number 566996

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760223	**Paddock Name:**	OM839 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	2			
Available Potassium ^	23	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	72	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.045		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	4.1	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.33	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	6.3	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	
Sulphur (KCl40)	2.6	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	9.2		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.059	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.0	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.30	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.044	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	1.42	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	3.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579224

Sample Number:	021760223	**Paddock Name:**	OM839 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.25	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.061	mg/kg	04-024-ICP6	
Manganese (DTPA)	7.7	mg/kg	04-024-ICP6	
Iron (DTPA)	43	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.11	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.54		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	56.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	29.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579227

This report supersedes Report Number 566997

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751189	**Paddock Name:**	OM839 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	54	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.037		04-026-ICP8	Calculated
Magnesium % of Cations	36	%	04-026-ICP8	Calculation
Potassium % of Cations	3.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.9	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.98	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.14	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.3	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.080	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	13	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.14	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.09	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	54.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	18.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579227

Sample Number:	021751189	**Paddock Name:**	OM839 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	25.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579231

This report supersedes Report Number 566998

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760880	**Paddock Name:**	OM839 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	50	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	50	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	45	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.67	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.13	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.0	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.10	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	51.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	14.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579231

Sample Number:	021760880	**Paddock Name:**	OM839 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	31.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579232

This report supersedes Report Number 566999

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760879	**Paddock Name:**	OM839 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	28	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	34	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.027		04-026-ICP8	Calculated
Magnesium % of Cations	59	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.69	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.072	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.96	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.7	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.12	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.81	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	4.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.56		04-026-ICP8	Calculation
pH (1:5 Water)	7.0		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	22.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579232

Sample Number:	021760879	**Paddock Name:**	OM839 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	23.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579234

This report supersedes Report Number 567000

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751188	**Paddock Name:**	OM840 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	79	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.060		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	5.5	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	2.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	5.8	mg/kg	04-063-FIA3	
Ammonium Nitrogen	6.2	mg/kg	04-063-FIA3	
Sulphur (KCl40)	2.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	11	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	20		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.27	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.67	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	<0.022	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	9.1	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.81	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579234

Sample Number:	021751188	**Paddock Name:**	OM840 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	2.1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	5.7		04-026-ICP8	Calculation
pH (1:5 Water)	6.1		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.38	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.72	mg/kg	04-024-ICP6	
Manganese (DTPA)	25	mg/kg	04-024-ICP6	
Iron (DTPA)	73	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.30	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.55		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	20.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	44.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	8.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579239

This report supersedes Report Number 567001

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751187	**Paddock Name:**	OM840 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	43	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	71	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	4.1	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.75	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	3.3	mg/kg	04-063-FIA3	
Ammonium Nitrogen	4.2	mg/kg	04-063-FIA3	
Sulphur (KCl40)	2.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.8	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	42		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.11	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.9	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.50	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.023	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	13	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.14	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.66	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	0.85	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579239

Sample Number:	021751187	**Paddock Name:**	OM840 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	5.4	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.28	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.11	mg/kg	04-024-ICP6	
Manganese (DTPA)	7.9	mg/kg	04-024-ICP6	
Iron (DTPA)	34	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.10	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.14		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	21.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	43.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	22.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579180

This report supersedes Report Number 566961

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751186	**Paddock Name:**	OM840 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	43	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.062		04-026-ICP8	Calculated
Magnesium % of Cations	20	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	
Ammonium Nitrogen	2.2	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.11	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.58	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.039	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	79	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.88	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.83	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	31	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.1		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	21	mg/kg	04-063-FIA3	
Sand (Coarse) ^	22.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	38.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579180

Sample Number:	021751186	**Paddock Name:**	OM840 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	15.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579181

This report supersedes Report Number 566962

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751185	**Paddock Name:**	OM840 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	3			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	3			
Available Potassium ^	36	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	33	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.044		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.65	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.96	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.093	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.0	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.16	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	97	mg/kg	04-027-ICP9	
Aluminium (KCl)	1.1	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.47	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	4.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	31	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	
Sand (Coarse) ^	26.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	38.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	16.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579181

Sample Number:	021751185	**Paddock Name:**	OM840 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	18.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579182

This report supersedes Report Number 566963

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751184	**Paddock Name:**	OM840 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	36	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	20	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.018		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	1.0	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.65	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.092	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.4	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.33	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	310	mg/kg	04-027-ICP9	
Aluminium (KCl)	3.4	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	9.01	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	3.7	%	04-026-ICP8	Calculation
Aluminium % of Cations	38	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.53		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	38.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	27.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579182

Sample Number:	021751184	**Paddock Name:**	OM840 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	16.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579183

This report supersedes Report Number 566964

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751183	**Paddock Name:**	OM841 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	71	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.074		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	6.7	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Grey-brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.4	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	2.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	
Ammonium Nitrogen	7.5	mg/kg	04-063-FIA3	
Sulphur (KCl40)	5.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	20	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	75		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.31	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.3	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.87	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.048	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	11	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.12	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.66	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579183

Sample Number:	021751183	**Paddock Name:**	OM841 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	2.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	1.4	mg/kg	04-024-ICP6	
Zinc (DTPA)	2.0	mg/kg	04-024-ICP6	
Manganese (DTPA)	58	mg/kg	04-024-ICP6	
Iron (DTPA)	220	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.45	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.27		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	34.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	10.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579184

This report supersedes Report Number 566965

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751182	**Paddock Name:**	OM841 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	2			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	2			
Available Potassium ^	33	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	66	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.046		04-026-ICP8	Calculated
Magnesium % of Cations	14	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.1	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.62	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	1.2	mg/kg	04-063-FIA3	
Ammonium Nitrogen	3.2	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	7.5	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	52		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.085	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.33	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.078	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	26	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.29	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.26	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	3.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579184

Sample Number:	021751182	**Paddock Name:**	OM841 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	13	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	4.5		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.92	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.17	mg/kg	04-024-ICP6	
Manganese (DTPA)	26	mg/kg	04-024-ICP6	
Iron (DTPA)	69	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.16	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.14		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	44.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	36.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	15.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579185

This report supersedes Report Number 566966

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751181	**Paddock Name:**	OM841 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	28	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.049		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.76	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.072	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.93	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.55	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.062	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	51	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.57	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.18	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	26	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	3.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	35.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	41.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579185

Sample Number:	021751181	**Paddock Name:**	OM841 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	19.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579186

This report supersedes Report Number 566967

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751180	**Paddock Name:**	OM841 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	49	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	27	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.056		04-026-ICP8	Calculated
Magnesium % of Cations	39	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.92	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.13	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.94	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.4	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.045	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	93	mg/kg	04-027-ICP9	
Aluminium (KCl)	1.0	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.50	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	30	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.67		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	3.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	35.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	32.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579186

Sample Number:	021751180	**Paddock Name:**	OM841 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	29.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579187

This report supersedes Report Number 566968

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751179	**Paddock Name:**	OM841 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	51	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	22	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.058		04-026-ICP8	Calculated
Magnesium % of Cations	44	%	04-026-ICP8	Calculation
Potassium % of Cations	3.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.0	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.13	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.74	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.079	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	82	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.91	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.32	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	27	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.49		04-026-ICP8	Calculation
pH (1:5 Water)	6.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.01	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	4.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	36.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	31.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579187

Sample Number:	021751179	**Paddock Name:**	OM841 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	28.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579188

This report supersedes Report Number 566969

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751178	**Paddock Name:**	OM842 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	180	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	9.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	2.7	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	7.0	mg/kg	04-063-FIA3	
Ammonium Nitrogen	3.1	mg/kg	04-063-FIA3	
Sulphur (KCl40)	4.4	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	13	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	59		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.46	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.98	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	<0.022	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	9.8	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.11	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.76	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	<1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579188

Sample Number:	021751178	**Paddock Name:**	OM842 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	2.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.33	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.69	mg/kg	04-024-ICP6	
Manganese (DTPA)	5.5	mg/kg	04-024-ICP6	
Iron (DTPA)	150	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.38	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.22		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	16.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	44.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	25.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579189

This report supersedes Report Number 566970

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021751177	**Paddock Name:**	OM842 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	53	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.099		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	7.4	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.2	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	5.6	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	64		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.26	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.82	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.049	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	47	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.52	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.47	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579189

Sample Number:	021751177	**Paddock Name:**	OM842 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	15	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.37	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.23	mg/kg	04-024-ICP6	
Manganese (DTPA)	1.26	mg/kg	04-024-ICP6	
Iron (DTPA)	190	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.26	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.10		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	12.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	34.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	29.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	22.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579190

This report supersedes Report Number 566971

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760258	**Paddock Name:**	OM842 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	150	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	15	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	34	%	04-026-ICP8	Calculation
Potassium % of Cations	8.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.2	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.98	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.37	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.69	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.060	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	170	mg/kg	04-027-ICP9	
Aluminium (KCl)	1.9	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.51	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	41	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.46		04-026-ICP8	Calculation
pH (1:5 Water)	5.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	9.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	30.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579190

Sample Number:	021760258	**Paddock Name:**	OM842 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	39.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579191

This report supersedes Report Number 566972

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760257	**Paddock Name:**	OM842 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	1.6	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.095		04-026-ICP8	Calculated
Magnesium % of Cations	59	%	04-026-ICP8	Calculation
Potassium % of Cations	5.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	0.95	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.34	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.097	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.5	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.14	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	170	mg/kg	04-027-ICP9	
Aluminium (KCl)	1.9	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.91	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	32	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.028		04-026-ICP8	Calculation
pH (1:5 Water)	5.9		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	15	mg/kg	04-063-FIA3	
Sand (Coarse) ^	7.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	21.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	16.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579191

Sample Number:	021760257	**Paddock Name:**	OM842 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	54.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579192

This report supersedes Report Number 566973

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760255	**Paddock Name:**	OM842 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	71	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	<1	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.031		04-026-ICP8	Calculated
Magnesium % of Cations	84	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.1	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.81	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.18	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	<0.025	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	5.8	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.39	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	48	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.53	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	6.91	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	5.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	7.7	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.0043		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	
Sand (Coarse) ^	7.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	27.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	14.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579192

Sample Number:	021760255	**Paddock Name:**	OM842 60-100	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	50.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579193

This report supersedes Report Number 566974

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760254	**Paddock Name:**	OM843 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	290	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	19	%	04-026-ICP8	Calculation
Potassium % of Cations	9.7	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.8		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	1.4	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	4.8	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	58	mg/kg	04-063-FIA3	
Ammonium Nitrogen	7.4	mg/kg	04-063-FIA3	
Sulphur (KCl40)	11	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	38	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	71		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.75	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	5.4	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.039	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	11	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.12	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	7.76	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	0.50	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579193

Sample Number:	021760254	**Paddock Name:**	OM843 0-5	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	1.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.6		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.17	dS/m	04-031-PH	1:5 soil/water
Chloride	22	mg/kg	04-063-FIA3	
Copper (DTPA)	0.52	mg/kg	04-024-ICP6	
Zinc (DTPA)	1.8	mg/kg	04-024-ICP6	
Manganese (DTPA)	29	mg/kg	04-024-ICP6	
Iron (DTPA)	150	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.66	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.54		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	5.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	57.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	24.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	13.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579241

This report supersedes Report Number 567002

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760253	**Paddock Name:**	OM843 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	61	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	26	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.10		04-026-ICP8	Calculated
Magnesium % of Cations	11	%	04-026-ICP8	Calculation
Potassium % of Cations	3.5	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.3	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.98	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	14	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.3	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	140		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.16	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.50	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.049	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	230	mg/kg	04-027-ICP9	
Aluminium (KCl)	2.6	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.40	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 579241

Sample Number:	021760253	**Paddock Name:**	OM843 5-15	**Date Sampled:**	6-Aug-2018
Test Code:	2017-082			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	58	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.2		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	
Copper (DTPA)	0.62	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.34	mg/kg	04-024-ICP6	
Manganese (DTPA)	1.5	mg/kg	04-024-ICP6	
Iron (DTPA)	330	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.27	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.04		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	37.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	34.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	25.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579245

This report supersedes Report Number 567003

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760252	**Paddock Name:**	OM843 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	82	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	12	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.15		04-026-ICP8	Calculated
Magnesium % of Cations	13	%	04-026-ICP8	Calculation
Potassium % of Cations	3.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	8.4	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.21	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.66	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.73	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.049	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	350	mg/kg	04-027-ICP9	
Aluminium (KCl)	3.8	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.49	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	0.89	%	04-026-ICP8	Calculation
Aluminium % of Cations	70	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.90		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	24.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	33.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579245

Sample Number:	021760252	**Paddock Name:**	OM843 15-30	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	40.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579247

This report supersedes Report Number 567004

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	021760251	**Paddock Name:**	OM843 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	58	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	5.1	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.10		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	2.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.8	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.15	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.29	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.2	cmol(+)/kg	04-026-ICP8	)
Sodium (Amm-acet.)	0.076	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	360	mg/kg	04-027-ICP9	
Aluminium (KCl)	4.0	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.75	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	69	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.24		04-026-ICP8	Calculation
pH (1:5 Water)	5.5		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	22.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 579247

Sample Number:	021760251	**Paddock Name:**	OM843 30-60	**Date Sampled:**	6-Aug-2018
Test Code:	2017-064			**Date Received:**	31-Jul-2018
Purchase Order No:	SSM			**Date of Report:**	27-Mar-2019
Grower Name:	Sustainable Soils Managemer				

Analyte	Result	Units	Method Code	Comments
Clay ^	47.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577236

This report supersedes Report Number 577235

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised

Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020698	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	240	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	36	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.42		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	24	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.0	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	26	mg/kg	04-063-FIA3	
Ammonium Nitrogen	2.8	mg/kg	04-063-FIA3	
Sulphur (KCl40)	5.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.3	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	56		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.61	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.90	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.54	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.031	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	41	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.46	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.54	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577236

Sample Number:	022020698	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	18	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	1.1	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.47	mg/kg	04-024-ICP6	
Manganese (DTPA)	72	mg/kg	04-024-ICP6	
Iron (DTPA)	110	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.30	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.09		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	54.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	13.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577234

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020697	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	43	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.21		04-026-ICP8	Calculated
Magnesium % of Cations	24	%	04-026-ICP8	Calculation
Potassium % of Cations	14	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.7	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.59	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	30	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.95	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.41	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.71	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.057	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	44	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.49	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.90	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577234

Sample Number:	022020697	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	17	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.1		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.09	dS/m	04-031-PH	1:5 soil/water
Chloride	22	mg/kg	04-063-FIA3	
Copper (DTPA)	1.3	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.21	mg/kg	04-024-ICP6	
Manganese (DTPA)	120	mg/kg	04-024-ICP6	
Iron (DTPA)	50	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.23	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.09		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	53.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	16.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577233

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020696	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	160	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.093		04-026-ICP8	Calculated
Magnesium % of Cations	30	%	04-026-ICP8	Calculation
Potassium % of Cations	8.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	15	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.40	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.067	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	17	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.18	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.95	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	3.7	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.6		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.05	dS/m	04-031-PH	1:5 soil/water
Chloride	12	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	46.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	24.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577233

Sample Number:	022020696	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	27.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577232

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020695	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	89	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	57	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.038		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	3.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	4.5	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.23	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.7	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.4	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.070	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	6.38	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	21.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577232

Sample Number:	022020695	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	36.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577231

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020694	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	84	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	51	%	04-026-ICP8	Calculation
Potassium % of Cations	3.2	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.4	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.21	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.0	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.4	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.069	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	6.67	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.88		04-026-ICP8	Calculation
pH (1:5 Water)	6.4		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	43.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577231

Sample Number:	022020694	**Paddock Name:**	OM947	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	37.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577229

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020692	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	100	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	51	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	9.0	%	04-026-ICP8	Calculation
Slaking ^	0			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.5	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.83	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	19	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.90	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	49		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.26	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.5	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.83	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.052	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	26	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.29	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.94	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.8	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577229

Sample Number:	022020692	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	9.9	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	11	mg/kg	04-063-FIA3	
Copper (DTPA)	1.0	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.25	mg/kg	04-024-ICP6	
Manganese (DTPA)	44	mg/kg	04-024-ICP6	
Iron (DTPA)	85	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.26	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.10		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	53.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	28.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577228

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020691	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	93	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	61	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.044		04-026-ICP8	Calculated
Magnesium % of Cations	33	%	04-026-ICP8	Calculation
Potassium % of Cations	4.2	%	04-026-ICP8	Calculation
Slaking ^	1			
pH (1:5 CaCl2)	4.9		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.6	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.99	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.24	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.5	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.9	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.083	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.66	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.5	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	14	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	48.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577228

Sample Number:	022020691	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	32.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577227

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020690	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	73	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	56	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.026		04-026-ICP8	Calculated
Magnesium % of Cations	40	%	04-026-ICP8	Calculation
Potassium % of Cations	2.5	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.74	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.19	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	4.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.1	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.12	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	7.62	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.6	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.4		04-026-ICP8	Calculation
pH (1:5 Water)	6.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	37.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577227

Sample Number:	022020690	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	43.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577226

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020689	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	0			
Available Potassium ^	88	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	39	%	04-026-ICP8	Calculation
Emerson Class ^	2			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	56	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.23	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.8	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	4.1	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.14	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	7.26	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.9	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.68		04-026-ICP8	Calculation
pH (1:5 Water)	6.5		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	36.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	16.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577226

Sample Number:	022020689	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	45.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577225

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020688	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	330	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	55	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.29		04-026-ICP8	Calculated
Magnesium % of Cations	17	%	04-026-ICP8	Calculation
Potassium % of Cations	21	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.2	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	37	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.5	mg/kg	04-063-FIA3	
Sulphur (KCl40)	5.9	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	57		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.84	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.67	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.035	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	22	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.25	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.04	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	0.87	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577225

Sample Number:	022020688	**Paddock Name:**	OM948	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	6.2	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.3		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	2.5	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.42	mg/kg	04-024-ICP6	
Manganese (DTPA)	94	mg/kg	04-024-ICP6	
Iron (DTPA)	100	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.45	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.09		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	54.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	25.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	16.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577224

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020687	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	210	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	8			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	1			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.68	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	22	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.62	mg/kg	04-063-FIA3	
Sulphur (KCl40)	2.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	65		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.55	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.4	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.86	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.050	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	23	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.26	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.12	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.2	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577224

Sample Number:	022020687	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	6.3	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	2.5	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.16	mg/kg	04-024-ICP6	
Manganese (DTPA)	97	mg/kg	04-024-ICP6	
Iron (DTPA)	46	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.33	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.08		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	49.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	21.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577223

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020686	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	190	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	69	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.083		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	7.6	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.0		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	5.4	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.48	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	4.4	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.4	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.059	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	6.36	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	0.93	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	3.1		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	45.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	18.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577223

Sample Number:	022020686	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	33.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577222

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020685	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	93	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	67	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.030		04-026-ICP8	Calculated
Magnesium % of Cations	29	%	04-026-ICP8	Calculation
Potassium % of Cations	2.9	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.7		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.24	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	5.5	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.4	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.10	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	8.23	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	2.3		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	38.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	15.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577222

Sample Number:	022020685	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	44.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577221

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020684	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	87	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	59	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.8		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	<0.50	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.22	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	4.7	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.0	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.081	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	7.97	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.6		04-026-ICP8	Calculation
pH (1:5 Water)	6.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	37.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	17.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577221

Sample Number:	022020684	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	42.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577220

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020683	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.17		04-026-ICP8	Calculated
Magnesium % of Cations	21	%	04-026-ICP8	Calculation
Potassium % of Cations	11	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.1		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	1.5	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	42	mg/kg	04-063-FIA3	
Ammonium Nitrogen	3.0	mg/kg	04-063-FIA3	
Sulphur (KCl40)	7.7	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	50		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.29	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.59	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.031	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	67	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.75	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.76	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.1	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577220

Sample Number:	022020683	**Paddock Name:**	OM949	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	27	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	4.7		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.81	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.45	mg/kg	04-024-ICP6	
Manganese (DTPA)	22	mg/kg	04-024-ICP6	
Iron (DTPA)	210	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.28	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.13		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	4.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	56.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	24.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	14.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577219

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020682	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	63	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	38	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	22	%	04-026-ICP8	Calculation
Potassium % of Cations	6.6	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Brown		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.2		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.62	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	29	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Sulphur (KCl40)	3.1	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	43		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.16	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.93	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.55	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.036	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	69	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.76	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.5	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577219

Sample Number:	022020682	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	31	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	4.8		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.08	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Copper (DTPA)	0.62	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.14	mg/kg	04-024-ICP6	
Manganese (DTPA)	17	mg/kg	04-024-ICP6	
Iron (DTPA)	100	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.22	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.12		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	3.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	58.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	15.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577218

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020681	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	120	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.082		04-026-ICP8	Calculated
Magnesium % of Cations	26	%	04-026-ICP8	Calculation
Potassium % of Cations	6.4	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	20	mg/kg	04-063-FIA3	
Ammonium Nitrogen	<0.60	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.31	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.5	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	1.3	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.098	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	58	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.65	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.84	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.0	%	04-026-ICP8	Calculation
Aluminium % of Cations	13	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	13	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577218

Sample Number:	022020681	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	29.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577217

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020680	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	72	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.034		04-026-ICP8	Calculated
Magnesium % of Cations	37	%	04-026-ICP8	Calculation
Potassium % of Cations	3.3	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.1		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	3.3	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.1	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.18	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.2	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.1	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.072	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.57	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.3	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.0		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.03	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	3.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	42.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	20.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577217

Sample Number:	022020680	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	35.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577216

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020679	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	64	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	35	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.029		04-026-ICP8	Calculated
Magnesium % of Cations	61	%	04-026-ICP8	Calculation
Potassium % of Cations	2.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.2		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.6	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.76	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.16	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.0	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	3.5	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.067	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	5.79	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.2	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.57		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	41.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	16.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577216

Sample Number:	022020679	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	39.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577215

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020678	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	190	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	40	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.32		04-026-ICP8	Calculated
Magnesium % of Cations	23	%	04-026-ICP8	Calculation
Potassium % of Cations	21	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.9	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.99	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	36	mg/kg	04-063-FIA3	
Ammonium Nitrogen	4.0	mg/kg	04-063-FIA3	
Sulphur (KCl40)	5.2	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	6.4	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	44		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.48	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	0.94	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.55	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.070	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	28	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.31	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.35	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	3.0	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577215

Sample Number:	022020678	**Paddock Name:**	OM950	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	13	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.7		04-026-ICP8	Calculation
pH (1:5 Water)	5.2		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.11	dS/m	04-031-PH	1:5 soil/water
Chloride	35	mg/kg	04-063-FIA3	
Copper (DTPA)	1.0	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.46	mg/kg	04-024-ICP6	
Manganese (DTPA)	43	mg/kg	04-024-ICP6	
Iron (DTPA)	120	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.20	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.15		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	1.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	63.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	23.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	11.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577214

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020677	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	1			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	1			
20 hour remoulded aggregate ^	1			
Available Potassium ^	130	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	45	%	04-026-ICP8	Calculation
Emerson Class ^	7			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.19		04-026-ICP8	Calculated
Magnesium % of Cations	25	%	04-026-ICP8	Calculation
Potassium % of Cations	13	%	04-026-ICP8	Calculation
Slaking ^	2			
Soil Colour	Grey		04-042-PHYS	Munsell based groups
Soil Texture	Clay Loam		04-042-PHYS	Field texture, Northcote (1984).
pH (1:5 CaCl2)	4.4		04-031-PH	1:5 soil/0.01M CaCl2
Electrical Conductivity (Sat. Ext.) ^	0.6	dS/m	04-054-WCALC	Calculation
Organic Carbon (W&B)	0.71	%	04-018-UV1	Walkley & Black (1947)
Nitrate Nitrogen	17	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.3	mg/kg	04-063-FIA3	
Sulphur (KCl40)	2.0	mg/kg	04-021-ICP2	0.25M KCl at 40°C
Phosphorus (Colwell)	<5.0	mg/kg	04-013-COL_P	0.5M NaHCO3 (pH 8.5)
Phosphorus Buffer Index (PBI -Col)	43		04-020-ICP17	Calculation, using Colwell P (PB
Potassium (Amm-acet.)	0.32	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.61	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.11	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	28	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.31	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	2.44	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	4.4	%	04-026-ICP8	Calculation

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SOIL ANALYSIS REPORT

Report Number: 577214

Sample Number:	022020677	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-082			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Aluminium % of Cations	13	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.8		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.07	dS/m	04-031-PH	1:5 soil/water
Chloride	37	mg/kg	04-063-FIA3	
Copper (DTPA)	0.96	mg/kg	04-024-ICP6	
Zinc (DTPA)	0.29	mg/kg	04-024-ICP6	
Manganese (DTPA)	43	mg/kg	04-024-ICP6	
Iron (DTPA)	87	mg/kg	04-024-ICP6	
Boron (Hot CaCl2)	0.15	mg/kg	04-025-ICP7	Hot 0.01M CaCl2
Molybdenum (Hot CaCl2) ^	<0.010	mg/kg	04-083-ICP27	Hot 0.01M CaCl2
Phosphorus Environmental Risk Index ^	0.12		04-020-ICP17	Calculated: Col P / PBI
Sand (Coarse) ^	2.1	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	52.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	32.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Clay ^	12.6	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577213

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020625	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	110	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	52	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.11		04-026-ICP8	Calculated
Magnesium % of Cations	28	%	04-026-ICP8	Calculation
Potassium % of Cations	8.8	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	4.5		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	11	mg/kg	04-063-FIA3	
Ammonium Nitrogen	1.7	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.28	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	1.7	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	0.89	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.075	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	25	mg/kg	04-027-ICP9	
Aluminium (KCl)	0.27	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	3.17	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	2.4	%	04-026-ICP8	Calculation
Aluminium % of Cations	8.6	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.9		04-026-ICP8	Calculation
pH (1:5 Water)	5.4		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.06	dS/m	04-031-PH	1:5 soil/water
Chloride	44	mg/kg	04-063-FIA3	
Sand (Coarse) ^	1.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	53.9	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	27.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577213

Sample Number:	022020625	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	17.4	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577212

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020624	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	0			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	0			
Available Potassium ^	71	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	58	%	04-026-ICP8	Calculation
Emerson Class ^	6			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.028		04-026-ICP8	Calculated
Magnesium % of Cations	38	%	04-026-ICP8	Calculation
Potassium % of Cations	2.7	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.3		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	2.0	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.69	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.18	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	3.9	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.6	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.075	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	6.70	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.1	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	1.5		04-026-ICP8	Calculation
pH (1:5 Water)	6.3		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.04	dS/m	04-031-PH	1:5 soil/water
Chloride	28	mg/kg	04-063-FIA3	
Sand (Coarse) ^	0.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	43.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	19.3	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577212

Sample Number:	022020624	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	36.2	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577211

Sustainable Soils Management P/L
PO Box 130
WARREN
NSW 2824

Report Authorised
Paul Kennelly
Laboratory Manager

NATA Accredited Laboratory Number: 11958

Sample Number:	022020623	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
2 hour natural aggregate ^	0			
2 hour remoulded aggregate ^	1			
20 hour natural aggregate ^	0			
20 hour remoulded aggregate ^	1			
Available Potassium ^	56	mg/kg	04-026-ICP8	Calculation
Calcium % of Cations	46	%	04-026-ICP8	Calculation
Emerson Class ^	3			Emerson, AS 1289.3.8.1
Grass Tetany Risk Index ^	0.033		04-026-ICP8	Calculated
Magnesium % of Cations	49	%	04-026-ICP8	Calculation
Potassium % of Cations	3.1	%	04-026-ICP8	Calculation
Slaking ^	0			
pH (1:5 CaCl2)	5.6		04-031-PH	1:5 soil/0.01M CaCl2
Nitrate Nitrogen	1.3	mg/kg	04-063-FIA3	
Ammonium Nitrogen	0.62	mg/kg	04-063-FIA3	
Potassium (Amm-acet.)	0.14	cmol(+)/kg	04-026-ICP8	
Calcium (Amm-acet.)	2.1	cmol(+)/kg	04-026-ICP8	
Magnesium (Amm-acet.)	2.2	cmol(+)/kg	04-026-ICP8	
Sodium (Amm-acet.)	0.082	cmol(+)/kg	04-026-ICP8	
Aluminium (KCl)	<9.0	mg/kg	04-027-ICP9	
Aluminium (KCl)	<0.10	cmol(+)/kg	04-027-ICP9	
Cation Exchange Capacity (Amm-acet.)	4.58	cmol(+)/kg	04-026-ICP8	Calculation
Sodium % of cations	1.8	%	04-026-ICP8	Calculation
Aluminium % of Cations	<1	%	04-026-ICP8	Calculation
Calcium/Magnesium Ratio	0.95		04-026-ICP8	Calculation
pH (1:5 Water)	6.6		04-031-PH	1:5 soil/water
Electrical Conductivity (1:5 water)	0.02	dS/m	04-031-PH	1:5 soil/water
Chloride	<10	mg/kg	04-063-FIA3	
Sand (Coarse) ^	2.5	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Sand (Fine) ^	46.7	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Silt ^	26.0	%	04-001-SANSILCLAY	Hydrometer & sieve analysis

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SOIL ANALYSIS REPORT

Report Number: 577211

Sample Number:	022020623	**Paddock Name:**	OM951	**Date Sampled:**	29-Jan-2019
Test Code:	2017-064			**Date Received:**	6-Feb-2019
Purchase Order No:	MGP			**Date of Report:**	9-Mar-2019
Grower Name:	SSM				

Analyte	Result	Units	Method Code	Comments
Clay ^	24.8	%	04-001-SANSILCLAY	Hydrometer & sieve analysis
Texture (Calculated) ^			04-001-SANSILCLAY	Hydrometer & sieve analysis

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Analyses performed on soil dried at 40 °C and ground to 2mm or less.

^ NATA accreditation does not cover the performance of this service.

Accredited for compliance with ISO/IEC 17025 - Testing.
This results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

Nutrient Advantage Laboratory Services
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Enquiry: lab.feedback@incitecpivot.com.au

Disclaimer: This analysis report is prepared solely for the client listed above. To the extent permitted by law, Incitec Pivot Limited excludes all liability in connection with this report and, where liability cannot be excluded, limits its liability, at its election, to the re-supply of the analysis services or the cost of the re-supply of such services.

APPENDIX IV:

Results of chemical analysis of soil samples conducted by

Sydney Environmental and Soil Laboratory

SESL AUSTRALIA
Environment & Soil Sciences

Multiple Analysis Profile

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120
Tel: 1300 30 40 80
Fax: 1300 64 46 89

Mailing Address: PO Box 357
Pennant Hills NSW 1715
Em: info@sesl.com.au
Web: www.sesl.com.au

Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 1** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 703 10-60cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	984
Iron by Citrate	mg/kg	16300

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017

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Environment & Soil Sciences

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Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 2** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 716 40-80cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	792
Iron by Citrate	mg/kg	8310

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017

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Environment & Soil Sciences

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Tel: 1300 30 40 80
Fax: 1300 64 46 89

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Pennant Hills NSW 1715
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Web: www.sesl.com.au

Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 3** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 737 35-70cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	1740
Iron by Citrate	mg/kg	28600

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017

SESL AUSTRALIA
Environment & Soil Sciences

Multiple Analysis Profile

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120
Tel: 1300 30 40 80
Fax: 1300 64 46 89

Mailing Address: PO Box 357
Pennant Hills NSW 1715
Em: info@sesl.com.au
Web: www.sesl.com.au

Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 4** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 762 20-50cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	1310
Iron by Citrate	mg/kg	18200

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017

SESL AUSTRALIA
Environment & Soil Sciences

Multiple Analysis Profile

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120
Tel: 1300 30 40 80
Fax: 1300 64 46 89

Mailing Address: PO Box 357
Pennant Hills NSW 1715
Em: info@sesl.com.au
Web: www.sesl.com.au

Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 5** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 793 10-40cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	2590
Iron by Citrate	mg/kg	28100

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017

SESL AUSTRALIA
Environment & Soil Sciences

Multiple Analysis Profile

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120
Tel: 1300 30 40 80
Fax: 1300 64 46 89

Mailing Address: PO Box 357
Pennant Hills NSW 1715
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Web: www.sesl.com.au

Tests are performed under a quality system certified as complying with ISO 9001: 2008. Results and conclusions assume that sampling is representative. This document shall not be reproduced except in full.

Batch N°: 42944 **Sample N°: 6** **Date Instructions Received: 13/4/17** **Report Status: ○ Draft ◉ Final**

Client Name: **Sustainable Soils Management**
Client Contact: **David Duncan**
Client Job N°:
Client Order N°:
Address: **PO BOX 130**
WARREN NSW 2824

Project Name: **Citrate dithionite extract Iron & Aluminium test**
SESL Quote N°:
Sample Name: **OM 794 15-70cm**
Description: **Soil**
Test Type: **Spec**

Analysis	Unit	Result
Aluminium by Citrate	mg/kg	1360
Iron by Citrate	mg/kg	12300

Commentary from SESL Australia not requested. Please contact our office on 1300 30 40 80 if you require assistance with these results.

Consultant: Jesse Fenn

Authorised Signatory: Michelle Murphy

Date Report Generated
2/05/2017