Conditions of Consent

(Approved subject to the conditions specified in this notice and in accordance with the stamped approved plans)

Reason for the Imposition of Conditions

The reason for the imposition of the following conditions shall ensure, to Council's satisfaction, the objects of the Environmental Planning and Assessment Act 1979 (as amended) are achieved:

To encourage:

a) The proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forest, minerals, water, cities, towns, and villages for the purpose of promoting the social and economic welfare of the community and a better environment;

   i. The promotion and co-ordination of the orderly and economic use of development of land;

   ii. The protection, provision, and co-ordination of communication and utility services;

   iii. The provision of land for public purposes;

   iv. The provision and co-ordination of community services and facilities;

   v. The protection of the environment, including the protection and conservation of native animals and plants including threatened species, populations, and ecological communities and their habitats;

   vi. Ecologically Sustainable Development; and

   vii. The provision and maintenance of affordable housing.

b) To promote the sharing of the responsibility for environmental planning between the different levels of government in the State.

To provide increased opportunity for public involvement and participation in environmental planning and assessment

Prescribed Conditions

1.

a) The work shal be carried out in accordance with the requirement of the *Building Code of Australia.*

b) In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.

c) A sign shall be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

i. showing the name, address and telephone number of the Certifying Authority for the work, and

ii. showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and

iii. stating that unauthorised entry to the work site is prohibited.

Any such sign shall be maintained while the building work, subdivision work or demolition work is being carried out, but shall be removed when the work has been completed.

Approved Documentation

2.

a) Plan Reference

Detail Survey provided by Tenterfield Surveys Dated: 21/06/2021	
Name of Plan	**Drawing Number**
Detail survey of Lot 1 DP516621, Lot 33 DP1138201 and lots A & B in DP150057 No.148 Rouse Street, Tenterfield	TE210726-SV1

Architectural Drawings prepared by: Mills Gorman Architects; Project: Cinemas			
Name of Plan	**Dated**	**Drawing Number**	
Cover Page	26/11/2021	DA00	Rev B
Existing & Demolition Plan	26/11/2021	DA01	Rev B
Staging Plan	28/10/2021	DA02	Rev A
Proposed Ground Floor Plan	26/11/2021	DA03	Rev B
Roof Plan	26/11/2021	DA04	Rev B
Elevations	26/11/2021	DA05 & DA05.1	Rev B
Elevations	26/11/2021	DA06	Rev B
Site Sections	26/11/2021	DA07	Rev B
Site Sections		DA08	
Perspective Views	26/11/2021	DA09	Rev B

Landscape Masterplan prepared by: Species Landscape Architecture Project: 21047 Dated: September 2021	
Name of Plan	**Drawing Number**
Site Plan	M1
Materials	M2
Planting Images	M3

Stormwater Management Plan provided by Whitton Engineering Dated: 14/09/2021	
Name of Plan	**Drawing Number**
Cinema Development Site Plan Lot Layout Complete Aerial Overlay Stages 1-8 Lots 1-104 Complete	Plan No. WEDS 21-23-SW.1

Lighting Impact Assessment prepared by: Lighting & Energy Solutions Project: Cinemas – 148 Rouse Street, Tenterfield NSW Dated: 28.09.2021	
Name of Plan	**Drawing Number**
External Lighting – Lux Plot Calculation	CP01
External Lighting – Carpark Layout	CP02
External Lighting – Obtrusive Light Calculation	CP03

Details of the development shown in the approved plans and documents referenced are altered in the manner indicated by:

i. Any amendments made by Council on the approved plans or documents;

ii. Any notes, markings, or stamps on approved plans or documents, and

iii Any conditions contained in this consent.

Fixed Development Contributions

3. In accordance with Council's adopted s7.12 Development Contribution Plan (General Development) a contribution of $98,670.00 is payable prior to the issue of the 1st Construction Certificate for the site. The person having the benefit of the consent shall comply with each of the consent conditions prior to the issue of a Construction Certificate.

Consolidation of Lots

4. Prior to the issue of the Construction Certificate for Stage 1 of the development all lots forming part of the development consent are to be consolidated.

Construction Certificate

5. Prior to the commencement of building work or subdivision work, a Construction Certificate shall be obtained.

   Note: If the Construction Certificate is issued by a Certifying Authority that is not Council it shall be necessary to lodge the Construction Certificate and other approved documents with Council within two days of such approval. (Clause 142(2) Environmental Protection Authority Regulation 2000).

Erosion and Sediment Control

6. A final Erosion and Sediment Control Plan or Soil and Water Management Plan shall be submitted. The plan shall contain information required for the area of disturbance of the development or its distinct and separate stages in accordance with Managing Urban Stormwater: Soils and construction – Volume 1.

   The final plan shall include a signed and dated Statement of Compliance stating (in full):

   a) This plan has been developed, certified and signed off by an appropriately qualified and experienced professional in erosion and sediment control;

   b) The plan complies with the requirements for the area of disturbance in accordance with Managing Urban Stormwater: Soils and construction – Volume 1;

   c) The plan and associated documents, calculations and drawings, have been prepared to a standard which, if properly implemented, shall achieve the water release criteria of 50mg/L of total suspended solids (TSS); and

   d) All erosion and sediment control measures are in accordance with Managing Urban Stormwater: Soils and construction – Volume 1.

Car Parking and Allocation of Spaces

7. Plans demonstrating a total of 64 car parking spaces in accordance with Australian Standard AS/NZS 2890 shall be submitted.

Stormwater Management

8. A Stormwater Management Plan shall be submitted to Council and shall address the following;

    a) Given the critical nature of a development proposed over a natural watercourse through the main centre of the town, verification of stormwater integrity is required.

    b) Independent review of the stormwater calculations shall be undertaken given the critical nature of the structures restricting any major overflow or bypass flows, and the resulting risk to the public.

    c) The integrity of the building and car park over both proposed and existing stormwater structures is to be verified. Verification is to be provided as to how regular maintenance of the stormwater channel is to be maintained in perpetuity by the registered proprieter of the land.

    d) Stormwater shall be disposed of through a piped system designed in accordance with Australian Standard AS 3500 by a suitably qualified professional

Driveway Design - Industrial/Commercial

9. A design plan for any driveway construction to the development shall be submitted for approval. The designs shall be in accordance with AS 2890.2 and provide details of dimension including concrete thickness, material strength and reinforcement for construction.

    An unchannelised and unflared treatment for the Miles Street Rouse Street intersection is to be provided prior to issue of an Occupation Certificate for Stage 1 of the development. Strategic (2D) design drawings for all proposed works, structures and roadworks, within Rouse street are required.

    Any works, structures or roadworks on classified (State) road/s are to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and TfNSW Supplements. Where TfNSW Consent is required, the Developer may be required to enter into a Works Authorisation Deed (WAD) or other suitable agreement as required by TfNSW prior to any road works on the classified (State) road. The developer will be responsible for all costs associated with the roadwork and administration for the WAD. It is recommended that developers familiarise themselves with the requirements of the WAD process. Further information can be obtained from the TfNSW

Parking Areas and Access Ways

10. A design plan for parking areas and access ways shall be submitted. The design shall include pavement design, stormwater drainage, line marking and signage. The design shall meet relevant Australian Standards.

Acoustic Certification

11. Prior to the issue of the first Construction Certificate that includes architectural components of the development, certification shall be submitted to Council stating the development will coply with the NSW EPA Sleep Disturbance criteria as outlined in the NSW EPA Noise Policy for Industry.

Contamination

12. After demolition and removal of internal infrastructure as referred to in "Detailed Site Investigation, Ecoteam, October 2021" further soil sampling must be undertaken to validate that the site is suitable for its intended use. Sampling is also required below any slabs removed that were not assessed during this investigation.

Liquid Wastes

13. Prior to the issue of the relevant Construction Certificate which includes work to liquid trade waste equipment, details on the collection, treatment and/or disposal of liquid wastes arising from the operations shall be submitted to Council for approval. Details shall to include segregation of drainage areas subject to likely contamination, and the methods for preventing contaminants discharging from the site into the stormwater system. No work shall commence on site until the Council's approval is obtained.

Garbage Storage Areas

14. The garbage washing and bin storage area shall be provided with:

    a) Adequate facilities provided in a screened location within the premises for the separate storage of recyclable, non-recyclable and putrescible material.

    b) The garbage storage area constructed of, or lined with materials that are durable, impervious to moisture, and capable of being easily cleaned.

Loading Dock

15. Details of a location for deliveries are to be provided to Council prior to issue of the first construction certificate for the development

Construction and Fit-out of Food Premises

16. Prior to the issue of the first Construction Certificate which includes the Architectural components, the food premises shall comply with the following:

a) General Construction
The fit-out of areas used for food preparation, storage or display, shall comply with the requirements of the Food Act 2003, Food Regulation 2010, and Australian Standard AS4674 Design, construction and fit-out of food premises.
Note: Particular attention shall be paid to:

i. Routing of plumbing and electrical conduit
ii. Installation of hand wash basins and cleaners sinks
iii. Construction of floors, walls and ceilings
iv. Finishes of floors, walls and ceilings
v. Cool room construction
vi. Installation of fixtures fittings and equipment
vii. Toilet facilities and airlocks
viii. Installation of light fittings
ix. Installation of floor wastes
x. Ventilation and exhaust systems

b) Plans and Specifications
Plans and specification shall demonstrate compliance with the Food Act and Regulations, and relevant Australian Standards.

c) Mechanical Ventilation
Installation of any mechanical ventilation systems shall comply with the provisions of Part 2 of the Australian Standard AS1668.

d) Partition Wall Construction
Any partition wall(that do not extend to the ceiling), sills or other ledges located within food preparation areas shall be splayed on top at an angle of 45 degrees to prevent storage of articles and reveal build-up of food waste, dirt, grease or other visible matter.

e) Waste Traps
Any bucket traps, grease traps and associated sewer connections shall be installed in accordance with Council requirements.

Heritage Interpretation / Interpretation Devices

17.

(a) Archival Report

Prior to the issue of the Construction Certificate, a Photographic Archival Recording is to be undertaken of the former motor garage building and is to be prepared in accordance with the Heritage NSW's Guidelines for 'Photographic Recording of Heritage Items Using Film or Digital Capture' a copy of which is to be provided to Council.

(b) Heritage Interpretation Strategy and installation

A Heritage Interpretation Strategy is to be prepared for the site by a suitably qualified heritage consultant. The Heritage Interpretation Strategy should identify significant themes and narratives for interpretation, as well as identifying locations, media, and indicative content for interpretation. Interpretation should be developed throughout detailed design and construction phases in conjunction with the project architect and other specialists as required. There are opportunities for heritage interpretation for the former motor garage use through fabric conservation, signage and general informative interpretation devices. There is also an opportunity to interpret Sexton & Green's other early 20th Century enterprise, the Tenterfield Pictures/Lyceum Theatre, considering that the subject proposal includes provision of a new cinema complex.

Approved detailed drawings of interpretation devices and their content for the subject site, including external and internal locations, with any signage being consistent with the format of Tenterfield Town Centre interpretation signs, are to be submitted to, and approved by Tenterfield Shire Council prior to the issue of a Construction Certificate by the Principal Certifying Authority. Approved devices/signs and installations are to be installed prior to the issue of an Occupation Certificate for the building.

(c) Principal Façade Conservation

The works should include conservation works for the principal parapeted façade to ensure retention of the rendered ashlar lines existing here. A heritage consultant should be consulted with regards to final detailing of the design to ensure that any impacts are appropriately managed.

(d) External Finishes and Materials

A detailed schedule and samples of all external finishes and colours, sympathetic to the Tenterfield Town Centre Heritage Conservation Area and heritage items in the vicinity of the site is to be submitted to, and approved by Council, prior to prior to the issue of a Construction Certificate by the Principal Certifying

Authority. Grey, black and white schemes are to be avoided and a warm colour palette is recommended.

(e) Advice -Alterations

Owners are advised of the requirements of Clause 5.10 of Tenterfield LEP 2013 in relation to the need to obtain prior consent for works including 'any alterations to the fabric, finish and appearance' of a heritage item or a building in a Heritage Conservation Area. Many works can be approved through a 'no fee', minor works and maintenance application under Clause 5.10 (3).

(f) Advice -Relics Provisions-

a. Attention is directed to the NSW Heritage Act 1977 and the provisions of the Act in relation to the exposure of relics. The Act requires that if:

i) a relic is suspected, or there are reasonable grounds to suspect a relic in ground, that is likely to be disturbed damaged or destroyed by excavation; and/or

ii) any relic is discovered in the course of excavation that will be disturbed, damaged or destroyed by further excavation; those responsible for the discovery must notify nominated management personnel who will in turn notify the Heritage Council of New South Wales or its delegate, Heritage NSW and suspend work that might have the effect of disturbing, damaging or destroying such relic until the requirements of the NSW Heritage Council have been satisfied (ss139, 146).

Signage

18. Details of all signage, sympathetic to the significance and setting of the Tenterfield Town Centre Heritage Conservation Area are to be submitted to, and approved by Council, prior to prior to the issue of a Construction Certificate by the Principal Certifying Authority.

Construction Waste Management Plan

19. Prior to the issue of the first Construction Certificate, a Construction Waste Management Plan prepared in accordance with Council's requirements, shall be provided to and approved Principal Certifying Authority.

Erosion and Sediment Control

20. Appropriate erosion and sediment controls shall be installed in accordance with the approved erosion and sedmentation control plan.

Filling Importation and Compaction

21. Prior to works commencing, and if proposed documentary evidence shall be provided to Council demonstrating the proposed fill material is either:
Virgin excavated natural material (VENM) as defined under the provisions of the NSW Protection of the Environment Operations Act 1997; or

    a) The material is from a known origin and composition, free of contamination from manufactured chemicals, process residues, building debris, sulfidic ores, or other foreign matter; or

    b) Fill which has been characterised and validated by a suitably qualified and experienced site contamination consultant, in accordance with the NSW Office of Environment and Heritage publication Contaminated Sites - Sampling Design Guidelines dated September 1995.

    Prior to works commencing, written certification from a suitably qualified geotechnical engineer that the material is suitable for the proposed use on the site, shall be provided to Council. Only that material certified by the geotechnical engineer shall be imported to the site.

    Written details shall be kept of address of the origin of the fill; quantities, dates, and times of delivery from each location; registration numbers and driver's identification details; and laboratory test results/consultants reports and available for inspection by the Certifying Authority or Council upon receipt of a written request.

Building Waste

22. An area for the containment of building waste materials shall be provided within the boundaries of the building site, above natural or excavated ground level, by a screened area of silt stop fabric or shade cloth, having minimum dimensions of 2.4 x 2.4 x 1.2 metres high OR equivalent size waste disposal bin.

    The enclosure or bin shall be maintained for the term of the construction to the completion of the development.
    The enclosure or bin shall be regularly cleaned to ensure proper containment of the building wastes generated on the site.

Works Within a Public Road Reserve

23. An application shall be made to Council in accordance with *Section 138 Roads Act 1993* for any works within the road reserve. No works shall commence within a road reserve, including the footpath/verge area, until an approval has been obtained. All footpaths disturbed during the construction works shall be reinstated as a minimum or completed in accordance with the approved development plans.

Dial Before You Dig (Advice)

24. Prior to commencement of work, the free national community service "Dial Before You Dig'' shall be contacted on 1100 regarding the location of underground services in order to prevent injury, personal liability and even death. Enquiries shall provide the property details and the nearest cross street/road.

Topsoil and Stockpiles of Materials

25. Topsoil shall only be stripped from approved areas. It may be stockpile onsite for re-use during site rehabilitation and landscaping. Stockpiles of any material including but not limited to, soil, sand, aggregate, and spoil, stored on the site that is capable of being moved by water shall be stored clear of any drainage line or easement, natural watercourse, footpath, kerb, and/or road surface. Suitable erosion and sediment controls shall be installed. The stockpile shall be treated so its surface is resistant to water and wind erosion. No stockpiles shall be located on the public footpath or road reserve without prior written approval from Council.

Landscape Works

26. Landscape works shall be constructed in accordance with the approved landscape plans. A detailed landscape master plan identifying appropriate species for the locality is to be provided to Council prior to the issue of the Construction Certificate.

    a. All landscaping shall be maintained for a minimum of 52 weeks to achieve continuous healthy growth.

    b. All planted areas shall be covered with minimum 100mm mulch to aid plant establishment.

27. At the completion of landscape works, the consulting Landscape Architect who prepared the documentation shall submit to the Certifying Authority a Landscape Compliance Report. This report shall certify shrub and tree species, pot size, and planting densities and landscape area setout comply with these conditions and the approved landscape documentation, and practical completion of the landscaping works has occurred. The Certifying Authority shall not issue the Final Occupation Certificate without receipt of the Landscape Compliance Report.

Excavation and Retaining

28. Retaining walls, footings and associated drainage works shall be located wholly within the subject property boundaries and shall be connected to the existing stormwater system or other approved stormwater system on the subject property.

    Note: Some retaining walls are able to be erected without consent, as Exempt or Complying Development pursuant to *State Environmental Planning Policy Exempt and Complying Development Codes 2008*. Prior to erection of any retaining wall not approved under this consent, reference to the State Environmental Planning Policy Exempt and Complying Development Codes 2008 shall be undertaken to ascertain whether approval is required.

Filling Importation and Compaction

29. All fill shall be placed in accordance with the standards specified in Table 5.1 of AS 3798-2007 Guidelines on Earthworks for Commercial and Residential Developments.

Works Within a Public Road Reserve

30. When works are being undertaken within a public road reserve, all necessary precautions shall be taken to protect the public while work is in progress, this shall include traffic control in accordance with Australian Standard AS1742 - Manual Uniform Traffic Control Services - Parts 1, 2 and 3 and approved by Council.

    The footpath along the Rouse, Miles & Crown Street frontage of the development shall be replaced with either concrete or pavers to Council's approval, including a Kerb Ramp meeting current AS 1428 provided at the corner of Rouse and Miles Street.

Site Amenities

31. Toilet facilities shall be available or provided at the work site before works begin and shall be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site.
    Each toilet shall:

    a) be a standard flushing toilet connected to a public sewer, or

    b) have an approved on-site effluent disposal system under the Local Government Act 1993, or

c) be a temporary chemical closet.

Construction Management Plan

32. A Construction Management Plan shall be submitted to Council demonstrating how construction will minimize the impacts of construction activities on neighbours, nearby residents, users of public footpaths and road, parking in the vicinity of the site and surrounding streets used to access the site.

Dust Suppression

33. During the extraction, removal, and transportation of material associated with the works, the person having the benefit of the consent shall ensure that airborne dust is contained within the work site or transport vehicles, and does not impact on the amenity of the surrounding environment.
Effective environmental controls and practices shall be implemented and maintained to the satisfaction of Council or the Certifying Authority.

Noise - Construction Sites

34. The operating noise level of construction site operations, including machinery, plant and equipment when measured at any affected premises, shall be evaluated and comply with the requirements of the NSW Office of Environment and Heritage publication Interim Construction Noise Guideline July 2009.
Approved Construction Times

a) The approved hours for construction of this development are;
Monday to Friday 7.00am to 6.00pm.
Saturday 8am to 1pm.

b) No construction work shall take place on Sundays or Public Holidays.

Construction Periods in Excess of 26 Weeks

c) If the construction period is in excess of 26 weeks for either stage, a Noise Management Plan shall be provided to Council prior to the issue of the first construction certificate. Such plan shall be prepared with the assistance of a suitably qualified acoustic engineer, indicating whether the use of machinery, plant and equipment during those operations can be completed without causing offensive noise (as defined in the Protection of the Environment Operations Act 1997) in the neighbouring area. The Noise Management Plan shall be complied with at all times during the construction period and shall identify any mitigation measures to control noise, noise monitoring techniques and reporting methods, likely potential impacts from noise and a complaints handling system.

d) Operational times may be amended with the written advice of Council's Chief Executive or delegate.

Construction Site Vibration

35. Vibration on surrounding land from construction site operations shall comply with the Office of Environment and Heritage publication Assessing Vibration: a technical guideline February 2006.

Occupation Certificate

36. The development shall not be occupied or used prior to the issuing of a Final Occupation Certificate or Part Occupation Certificate by the Certifying Authority. Where a Part Occupation Certificate has been issued, only that part of the building to which the Certificate applies may be occupied or used.

Stormwater Management

37. All drainage works shall be carried out in accordance with the approved Construction Certificate plans.
Prior to the issue of a Part or Final Occupation Certificate, whichever comes first, a Works As Executed Plan shall be prepared by a surveyor and submitted to the Certifying Authority that demonstrates compliance with the approved Construction Certificate. If there are any changes from the Construction Certificate these shall be highlighted in a different colour on the plan and certification shall be provided from the design engineer the changes do not affect the stormwater design outcomes.

Fix Damage Caused by Construction Works

38. Any damage to a public road or associated structures caused as a consequence of the construction works shall be made good to the satisfaction of Council.
Any disused kerb and gutter and footpath crossing shall be removed and replaced with full kerb and gutter in accordance with Council's standards.
These works shall be undertaken prior to the issue of the Final Occupation Certificate.

Car Parking

39. All car parking spaces, line marking and signage shall be completed prior to the issue of any Part or Final Occupation Certificate, whichever comes first.

Parking Areas and Access Ways

40. All parking areas and access ways shall be fully constructed and sealed in accordance with the approved Construction Certificate plans, prior to any Part of the Interim or Final Occupation Certificate, whichever comes first.

Driveway Construction - Industrial/Commercial

41. Prior to the issue of any Part or Final Occupation Certificate, whichever comes first, the driveway to the car parking area of the development shall be constructed in accordance with the approved Construction Certificate plan.

Noise - Ongoing Operation of Machinery, Plant and Equipment

42. Certification from a suitably qualified acoustic consultant shall be submitted prior to the issue of Part or Final Occupation Certificate, whichever occurs first, demonstrating the Laeq (15 minute) operating noise level of machinery, plant, equipment, or any other operational noise source, when measured at the boundary of another premises, complies with either the amenity or intrusiveness criteria calculated in accordance with the NSW Environment Protection Authority Noise Policy for Industry 2017.

Acoustic Certification

43. Prior to the issue of any Part or Final Occupation Certificate, whichever comes first, written confirmation shall be provided from a suitably qualified acoustic consultant certifying works have been completed in accordance with the recommendations of the Acoustic Report prepared for the development and the development is capable of operating in accordance with the design criteria.

Certification of Food Premises Fit-out

44. Prior to the issue of any Part or Final Occupation Certificate, whichever comes first, the food premises shall be inspected by an appropriately qualified person who shall certify the premises, including the construction and installation of all equipment, fixtures, fittings and finishes therein, complies with the Food Act 2003, Food Regulation 2010, and Australian Standard AS 4674 Design, construction and fit-out of food premises.

Safety and Security

45. The following measures to ensure and maintain safety and security shall be provided prior to the issue of any Part or Final Occupation Certificate:

    i. Provision of CCTV and effective lighting shall be provided within the car parking area and at the store entry and staff entry.

    ii. Driveways and pedestrian pathways shall not lead to concealed spaces.

    iii. A lighting design shall be prepared by a suitably qualified and experienced lighting expert.

    iv. The pedestrian entry/egress to/from the site from Rouse, Miles and Crown Streets shall be clearly defined and have an appropriate width, be appropriately lit and be provided with clear sight lines to ensure natural surveillance.

    v. Consistent and uniform lighting is shall be provided throughout all publicly accessible areas (where appropriate) within the proposed development.

    vi. Lighting along publicly accessible pathways and throughout the car park shall provide a lux level and uniformity level that is appropriate for urban areas. This shall be determined in consultation with an experienced lighting expert with experience in community safety principles.

    vii. All outdoor lighting within the proposed development shall comply with AS4282-1997.

    viii. A CCTV network shall be provided. The CCTV network shall be a discrete style of camera (such as a small dome camera) that is integrated/attached to the car park lighting or buildings.

    ix. The CCTV network shall cover the entrance/egress points of the site and the pedestrian linkage between Rouse & Crown Streets.

    x. A security consultant with a Class 2A licence under the Security Industry Act 1997 shall provide specific advice on placement, installation, monitoring and maintenance of the CCTV network.

    xi. Display CCTV security notice signs to convey that the site is under constant surveillance (if applicable).

    xii. Clearly delineate between publicly accessible areas and back of house/ staff only areas.

    xiii. Boundary fencing shall not visually enclose the site with high fencing for access control purposes, rather the fencing and associated gates should typically be a visual and physical cue not an intruder barrier. Boundary fences must be sympathetic to the setting and context of the Heritage

Conservation Area and details of all fencing is to be provided to and approved by Council prior to the release of the Construction Certificate.

xiv. Provide wayfinding signage where appropriate to reinforce perceptions of safety and legibility.

xv. Provide access control gates or other mechanisms to the car parking entries where appropriate and the building to prevent public access at times when the development is not operational.

Operational Management Plan

46. Prior to the issue of any part or final Occupation Certificate an Operational Management Plan shall be provided to and approved by Council. The Operational Management Plan shall include:

a) All landscaping shall be maintained in perpetuity.
b) Tree succession planting with fast growing native canopy trees.
c) Lighting maintenance.
d) Loading dock operation.
e) Emergency vehicles access.

Landscape Works

47. All landscape works required under this consent shall undergo an establishment maintenance period of a minimum of 52 weeks to achieve the landscape design intent.
All landscaping shall then be permanently maintained in good condition in accordance with the approved landscape plan.

Use and Allocation of Car Parking

48. The car parking provided shall only be used in conjunction with the uses contained within the development and except as provided for in these conditions, shall not be used other than by an occupant or tenant of the development.
The spaces shall be allocated in the following proportions:

Commercial spaces	61 spaces
Disabled car spaces	3 spaces

Hours of Operation

49. Following commencement of occupation:

a) The proposed operating hours for the cinema will be between 10.00am and 11.30pm seven days a week. Occasionally films may finish later but all operations are expected to be finished by midnight.

b) The cafe attached to the cinema will operate between 10.00am and 10.00pm seven days a week

c) Internal operation without trade to the public may occur within the main buildings between 4am to 10pm, Monday to Sunday

d) Deliveries may occur to the site 24 hours a day seven days a week internally to the development only.

e) Other internal operations such as cleaning, preparation and office administration may be undertaken outside of the above hours provided no disturbance to the amenity of the neighbourhood occurs.

External Storage of Products

50. The external storage or display of any products on the development site is not permitted.

Lighting

51. All external lighting shall be LED type with shielding and louvres which generally direct light in a downward direction to minimise light spill from the site. Any lighting installed shall comply with Australian Standard AS4282-1997 and not impact on users of the Rouse Street/New England Highway.

Onsite Loading Facility

52. The on-site loading facility shall be kept clear of goods and is not permitted to be used for any storage purposes, including garbage storage.
All loading operations associated with servicing the site, shall be carried out within the boundaries of the site, and shall not obstruct other properties, access driveways, public roads or footpaths.

Noise - Ongoing Operation of Machinery, Plant and Equipment

53. The Laeq (15 minute) operating noise level of machinery, plant, equipment, or any other operational noise source, when measured at the boundary of another premises, shall comply with either the amenity or intrusiveness criteria calculated in accordance with the NSW Environment Protection Authority Noise Policy for Industry 2017.
For assessing amenity criteria, the area shall be categorised in accordance with the guidelines outlined in Chapter 2 of that Policy.

Noise - Sleep Arousal

54. The Ll (one minute) operating noise level during night time hours of the premises, when measured at the window of any affected residential dwelling, shall comply with the NSW Environment Protection Authority (EPA) sleep disturbance criteria, calculated in accordance with the NSW EPA Noise Policy for Industry 2017.

Acoustic Certification

55. At 90 days of operation a suitably qualified acoustic consultant shall test, measure and certify the development is operating, at that time, in accordance with the approved Acoustic Report.

Bunded Spillage Areas

56. Chemicals stored in bulk form, or work areas where spillages are likely to occur, shall be bunded in accordance with the NSW Environment Protection Authority manual Bunding and Spill Management.

Medical / Pathology Waste

57. Any contaminated medical or pathology wastes stored on the premises shall be secured in approved containers and disposed of by a registered contractor, in accordance with the requirements of the NSW Department of Health and the NSW Environment Protection Authority.

Garbage Storage Areas

58. Adequate arrangements shall be made for the regular removal and disposal of waste materials.

Safety and Security

59. The following measures to ensure and maintain safety and security shall be enforced in perpetuity:

    a) Ensure opportunities for natural and incidental surveillance are maintained through effective lighting, access control and environmental maintenance.

    b) All new landscaping shall retain and improve sightlines. In this regard, the proposed vegetation, shrubs and trees should not (as far as possible) impede sightlines for pedestrians and should be regularly maintained to minimise concealment opportunities throughout the site.

    c) All lighting provided within and around the development, shall meet or where possible exceed the minimum Australian Lighting Standard AS/NZ 1158 specifically addressing crime reduction.

    d) All CCTV shall be maintained in functional and useful manner.

    e) Ensure that the building entrance/s remains free of unnecessary clutter to ensure entry points are highly visible.

    f) Ensure mechanisms are in place to facilitate the ongoing maintenance of the building, including the implementation of a rapid removal policy for vandalism repair and removal of graffiti.Consistently manage vegetation so that sight lines are maintained and opportunities for concealment are minimised.

Demolition and Asbestos

60. The demolition of the building structure is to be carried out in accordance with provisions of Australian Standard AS 2601 and the NSW WorkCover regulations.

    a) Any materials suspected of containing asbestos are to be identified and removed prior to the building being demolished. All materials containing asbestos are to be removed, handled and disposed of strictly in accordance with the Safe Work Australia Code of Practice – How to Safely Remove Asbestos 2011 and disposed of in accordance with EPA guidelines.

    b) Where more than 10 square metres of non-friable asbestos is to be removed the a NSW WorkCover licence holder (Class A Licence – Friable Asbestos and/or Class B Licence for non-friable or Bonded Asbestos) is to carry out the identification, removal and disposal of the asbestos in compliance with NSW WorkCover legislation. NSW WorkCover notification is required 5 days prior to the removal of materials containing asbestos.

    c) A clearance certificate is to be provided at the completion of the asbestos removal work these can be issued by a licensed asbestos assessor for

friable removal work, or a competent person for non-friable (bonded) removal work
Materials containing asbestos are only to be disposed of at a facility licensed by the NSW Environmental Protection Authority.
All demolition work is to be carried out in accordance with ASNZ2601 Demolition of structures.

d) Any demolition of a structure over 4 metres in height being demolished by machine or over 10 metres being demolished by any means is required to be carried out by a licenced demolition contractor.

e) All demolition materials shall be removed from the allotment and the site left in a clean and tidy state enabling the areas to be maintained preventing the accumulation of vegetative growth.

f) The demolition site shall be suitably protected from the entry of unauthorised persons at all times prior to the completion of the works.

Signage

61. No advertising sign shall be erected, painted or displayed without prior application to and approval from Council and shall be maintained in good order at all times to the satisfaction of the Council. No illumination of the sign shall be permitted due to the low ambient light levels in the locality at night.
Council reserves the right to have any signs altered or removed, changed or relocated if it considered they are prejudicial to the safety of the public.

Hoardings

62. Details of any proposed hoardings and or restrictions to access on the site prior to Stage 2 are to be provided to and approved by Council.

Signed on behalf of the consent authority

Darryl Buckingham _____ 2022
Chief Executive **Date**

Note *This approval does not guarantee compliance with any Act, Regulation or Standard (other than the Environmental Planning and Assessment Act, 1979, as amended) and builders/developers should make their own enquiry as to their legal responsibilities in this regard. Without limiting the generality of the above, approval does not guarantee compliance with the Disability Discrimination Act 1992 to which builders/developers are specifically referred.*

148 ROUSE STREET, TENTERFIELD

DRAWING LIST

No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
COVER PAGE

Date 26.11.21 | Drawn TP

Scale on A1

Drawing No. DA00 | Rev B

MGA
Mills Gorman Architects
Level 1 95 Johnston Street
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61 3 9650 1607
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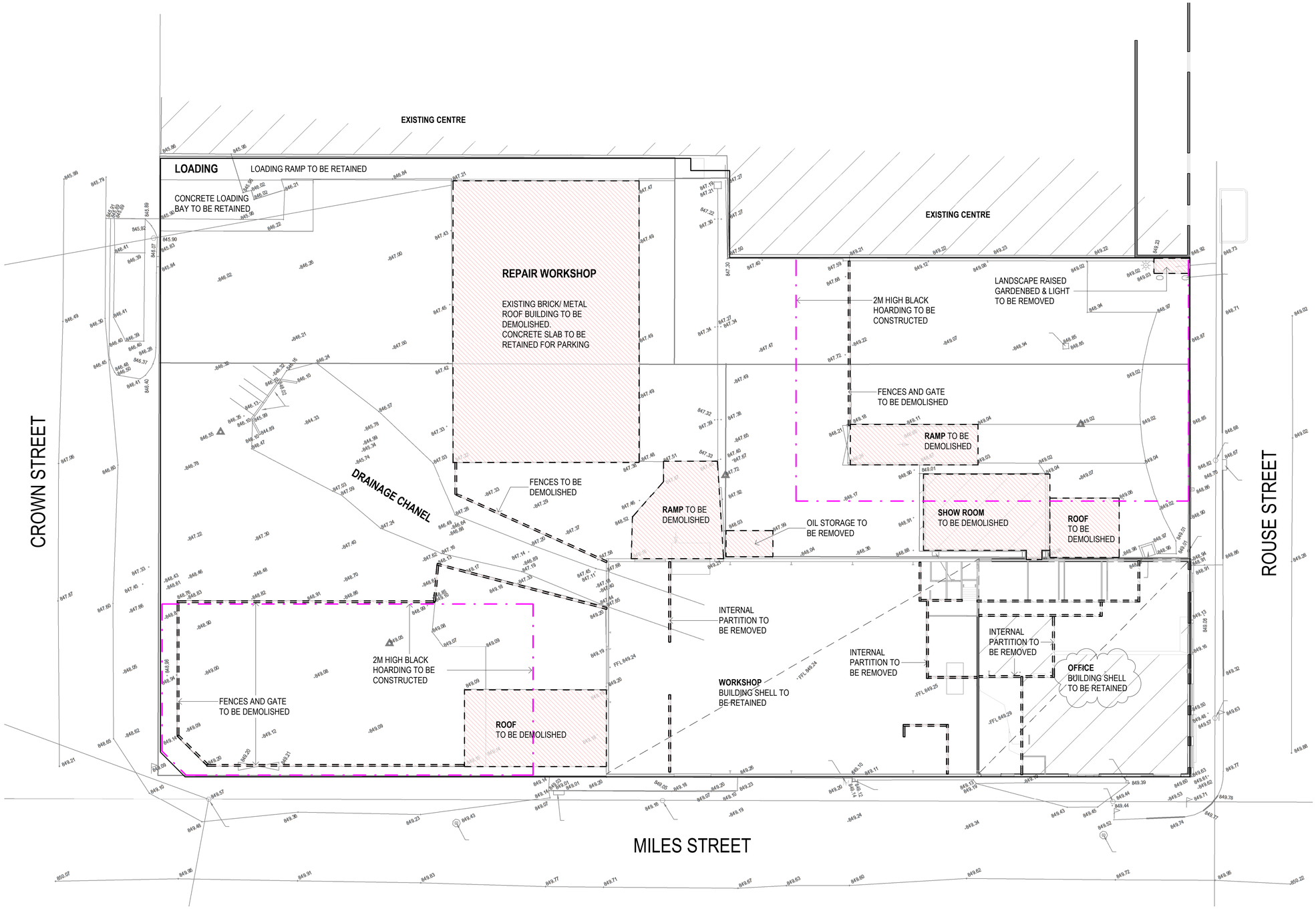

LEGEND

- EXTENT OF WALLS / STRUCTURES TO BE DEMOLISHED SHOWN DASHED / HATCHED
- TREES & PLANTING TO BE REMOVED SHOWN DASHED
- 2M H HOARDING AROUND STAGE 2 AREA

No.	Revision or reason for issue	Date
	DA SUBMISSION	07.10.21
B	RETAIN FACADE	26.11.21

Client: CHRIS HSU

Project: CINEMAS

Address: 148 ROUSE ST, TENTERFIELD

Title: EXISTING & DEMOLITION PLAN

Date: 26.11.21 | Drawn: TP

Scale on A1: As indicated

Drawing No.: DA01 | Rev: B

MGA
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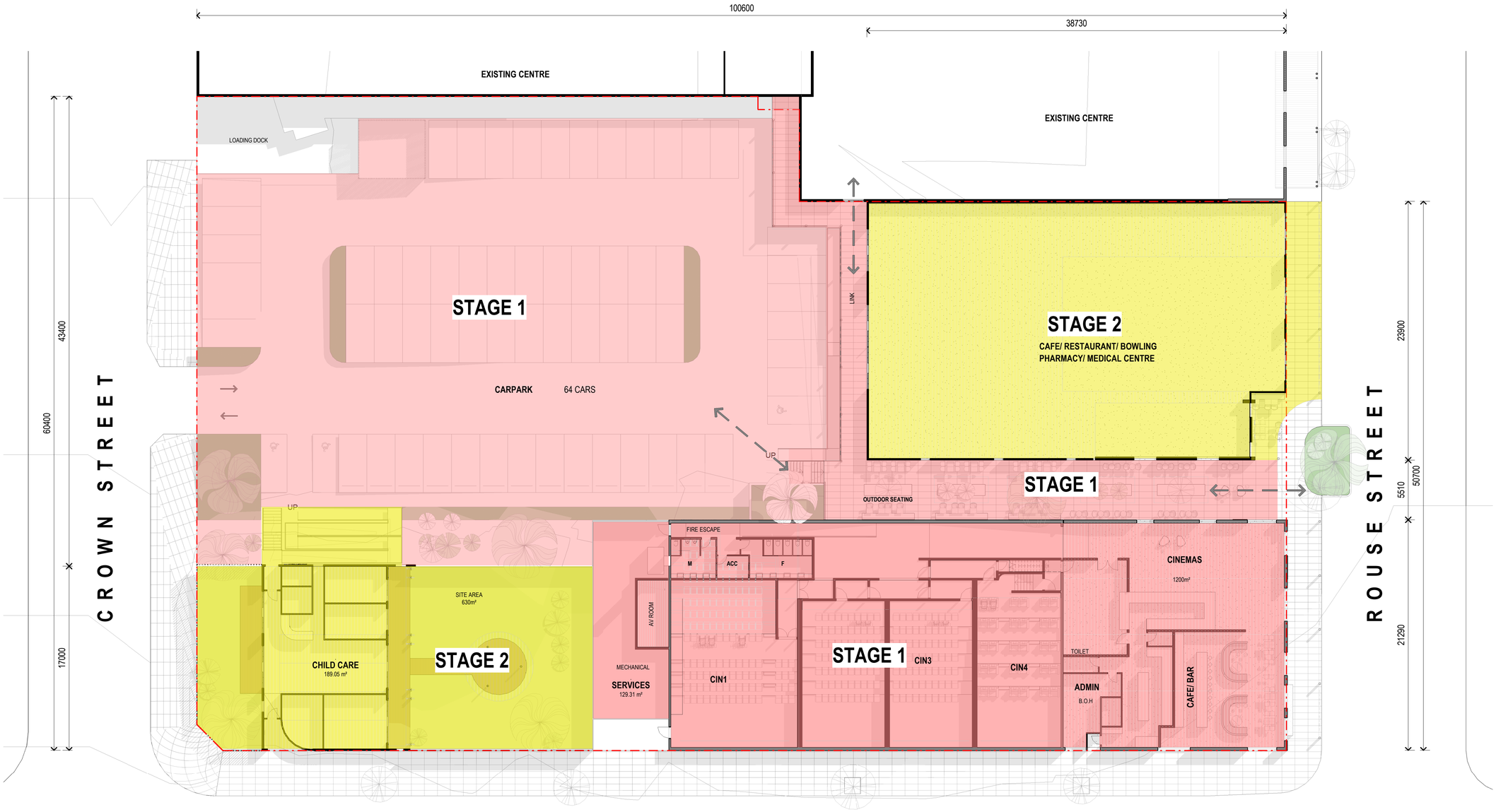

STAGING PLAN

SCALE 1 : 200

STAGE 1

- CINEMAS
- LANEWAY, CONNECTION TO EXISTING CENTRE
  CANOPY TO ROUSE STREET FOOTPATH
- CARPARK AREA

STAGE 2 (FUTURE STAGE)

- CAFE/ RESTAURANT/ BOWLING
  PHARMACY/ MEDICAL CENTRE
  CANOPY TO ROUSE ST FOOTPATH
- CHILD CARE CENTRE

No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21
A	RELOCATE LINK TO EX.CENTRE	28.10.21

Client: CHRIS HSU

Project: CINEMAS

Address: 148 ROUSE ST, TENTERFIELD

Title: STAGING PLAN

Date: 28.10.21 | Drawn: TP

Scale on A1: As indicated

Drawing No.: DA02 | Rev: A

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FLOOR PLAN
SCALE 1 : 200

LEGEND

- ADMIN
- BOWLING
- CAFE/ BAR
- CAFE/ RES
- CC. OUTDOOR
- CHILD CARE
- CIN1
- CIN2
- CIN3
- CIN4
- CINEMAS
- EXISTING CENTRE
- MEDICAL CENTRE
- PHARMACY
- PR. LOUNGE
- SERVICES

AREA SCHEDULE (TOTAL)

CARPARK	2072.54 m²
LANDSCAPE	206.95 m²
LANEWAY/ LANDSCAPE	384.50 m²
CINEMAS	1216.21 m²
PHARMACY/ MEDICAL/ CAFE/ BOWLLING	904.52 m²
SERVICES	147.11 m²
CHILD CARE	695.01 m²
TOTAL SITE AREA	5626.85 m²

(CHILD CARE AREA INCLUDING STAIR AND RAMP)

AREA SCHEDULE (BREAK DOWN)

ADMIN	95.35 m²
BOWLING	160.59 m²
CAFE/ BAR	115.64 m²
CAFE/ RES	148.91 m²
CC. OUTDOOR	320.71 m²
CC. OUTDOOR	101.51 m²
CHILD CARE	189.05 m²
CIN1	176.45 m²
CIN2	111.31 m²
CIN3	111.31 m²
CIN4	127.08 m²
CINEMAS	167.94 m²
CINEMAS	120.14 m²
MEDICAL CENTRE	400.36 m²
PHARMACY	184.02 m²
PR. LOUNGE	54.50 m²
SERVICES	129.31 m²

No.	Revision or reason for issue	Date
-	DA SUBMISSION	07.10.21
A	RELOCATE LINK TO EX.CENTRE	28.10.21
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
PROPOSED GROUND FLOOR PLAN

Date 26.11.21 | Drawn TP

Scale on A1 1 : 200

Drawing No. DA03 | Rev B

MGA
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Level 1 96 Johnston Street
Fitzroy Victoria 3065
61 3 9650 1607
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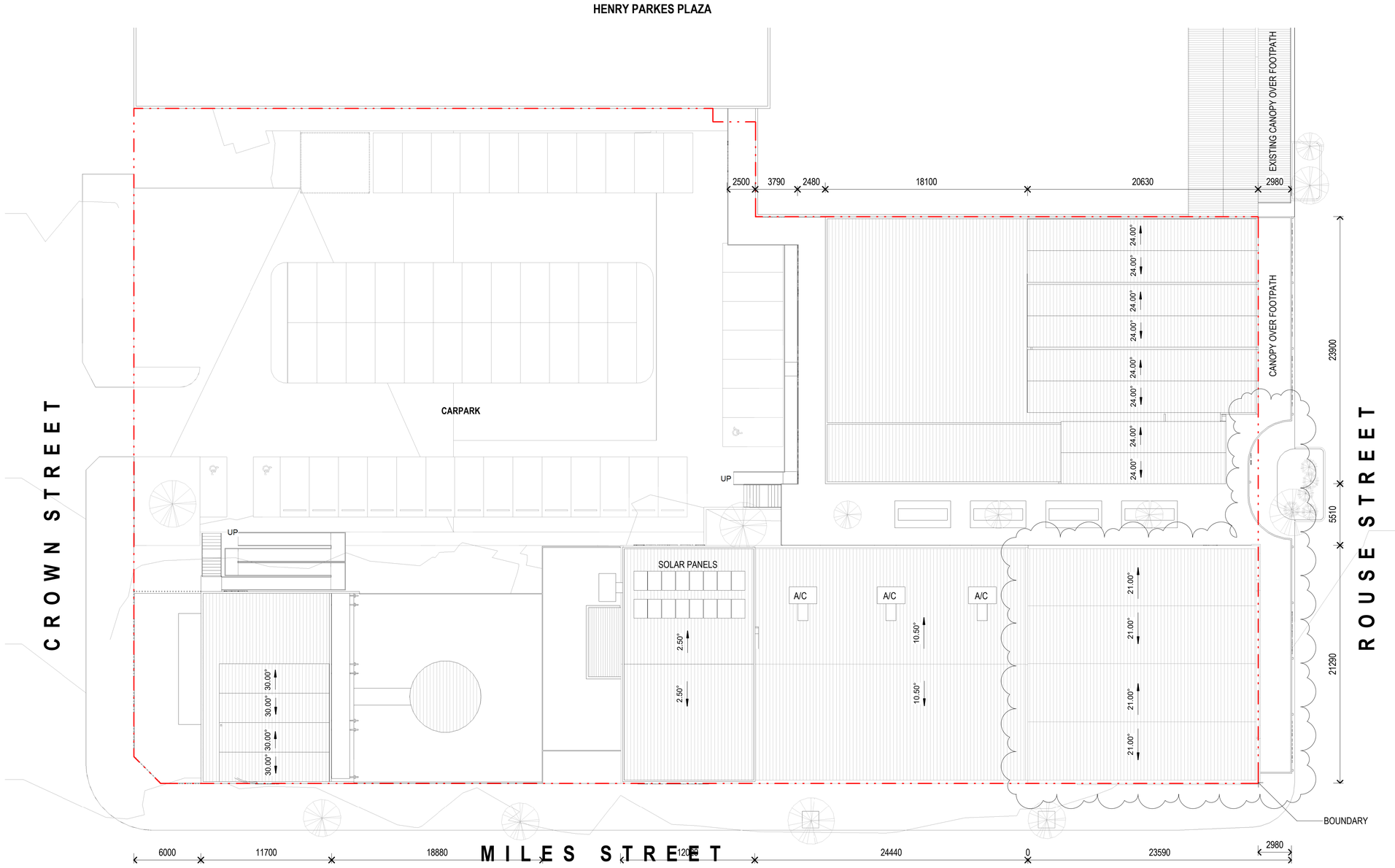

ROOF PLAN

SCALE 1 : 200

No.	Revision or reason for issue	Date
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
ROOF PLAN

Date 26.11.21 | Drawn Author

Scale on A1 1 : 200

Drawing No. DA04 | Rev B

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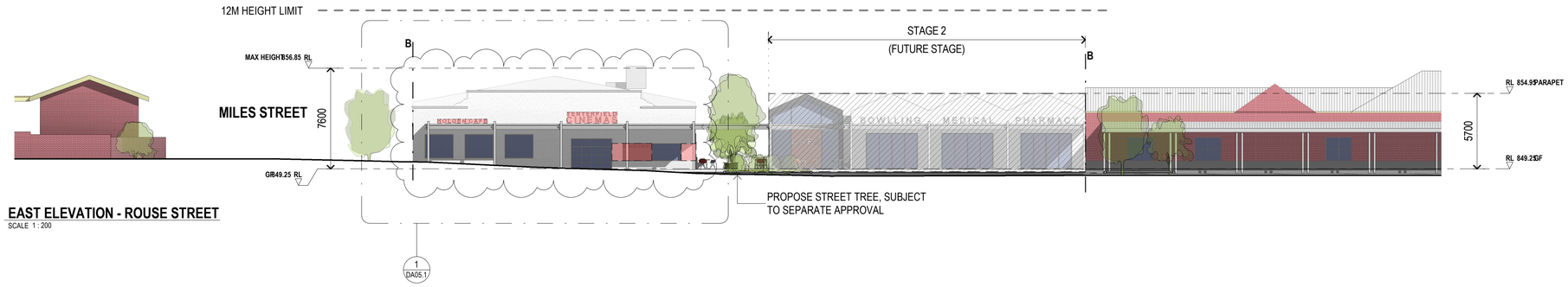
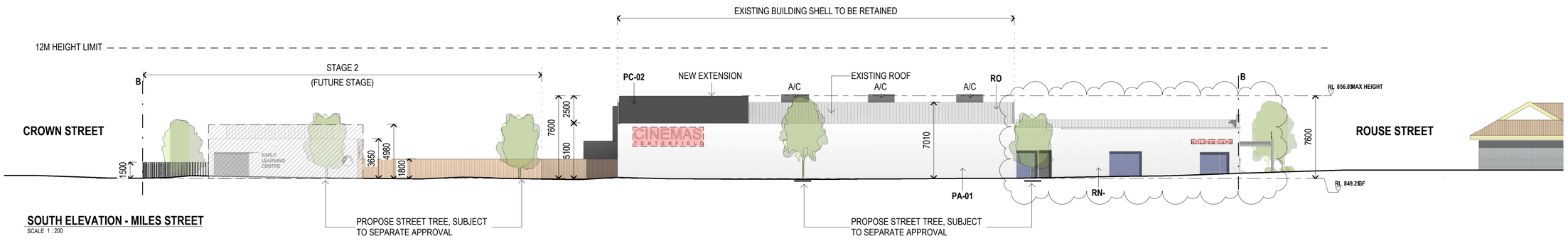


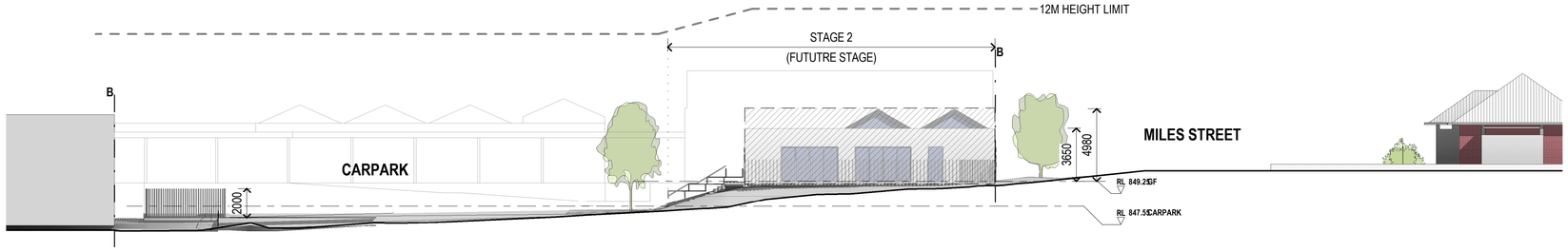
EAST ELEVATION - ROUSE STREET

SCALE 1 : 200



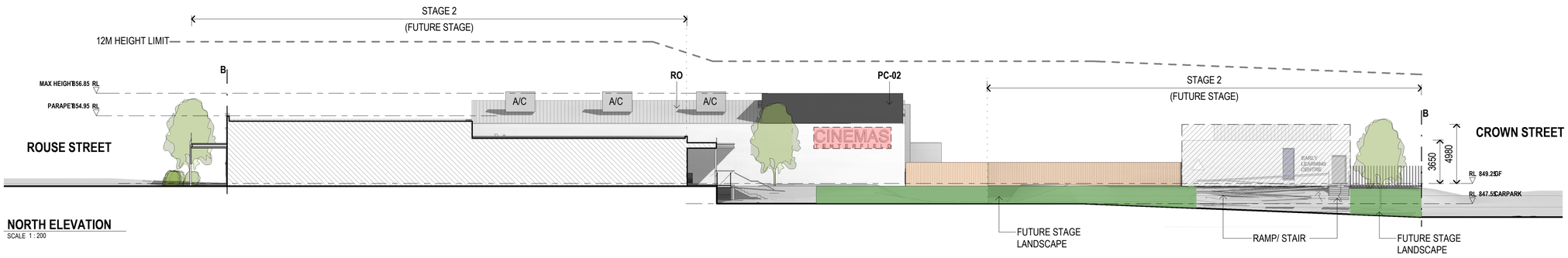
SOUTH ELEVATION - MILES STREET

SCALE 1 : 200



WEST ELEVATION - CROWN STREET

SCALE 1 : 200



NORTH ELEVATION

SCALE 1 : 200

B BOUNDARY

CINEMAS

SIGNAGE LOCATION ONLY, SIGNAGE DETAIL WILL BE INCLUDED IN A SEPARATE APPLICATION

MATERIALS LEGEND

CD	CLADDING
GLZ	GLAZING
PA	PAINT FINISH
PC	POWDERCOAT FINISH
RN	RENDER FINISH
RO	ROOFING
MA	MASONRY - FACE BRICKWORK
MET	METAL FINISH

No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21
B	RETAIN FACADE	26.11.21

Client: CHRIS HSU

Project: CINEMAS

Address: 148 ROUSE ST, TENTERFIELD

Title: ELEVATIONS

Date: 26.11.21 | Drawn: TP

Scale on A1: As indicated

Drawing No.: DA05 | Rev: B

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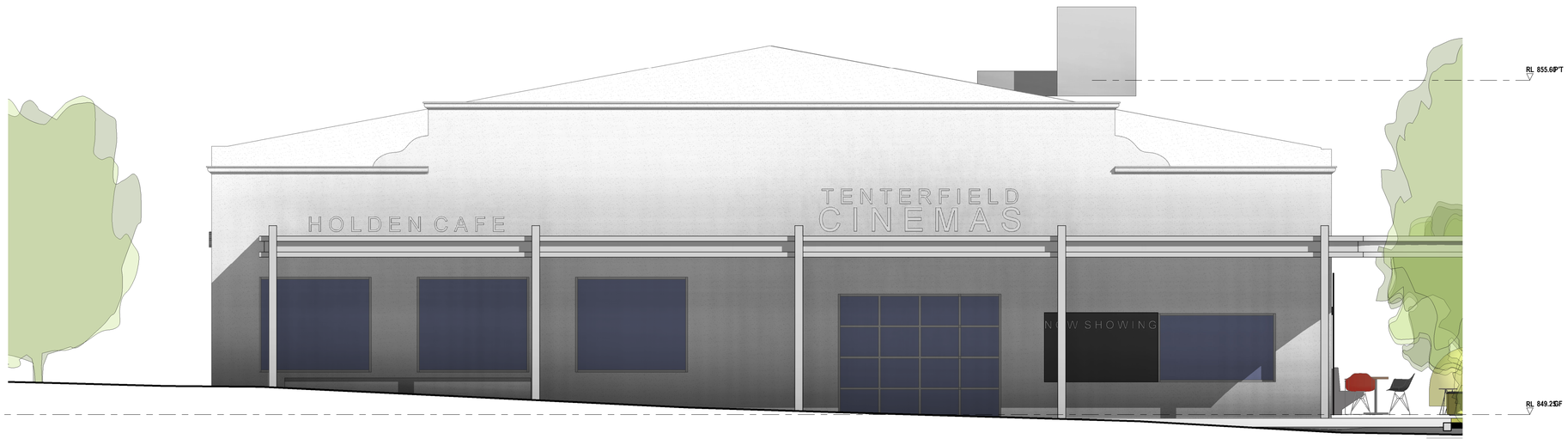

HERITAGE FACADE

SCALE 1 : 50

No.	Revision or reason for issue	Date

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
HERITAGE FACADE

Date	Drawn	Author
Scale on A1	1 : 50	

Drawing No.
DA05.1

Rev

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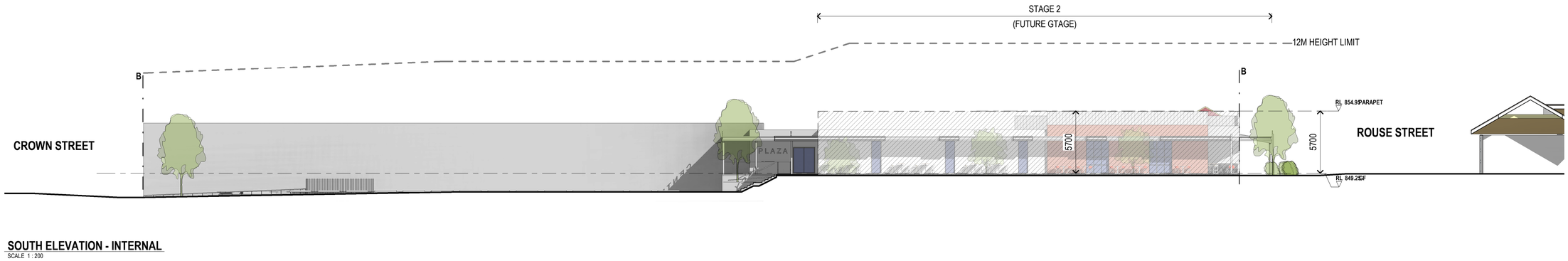
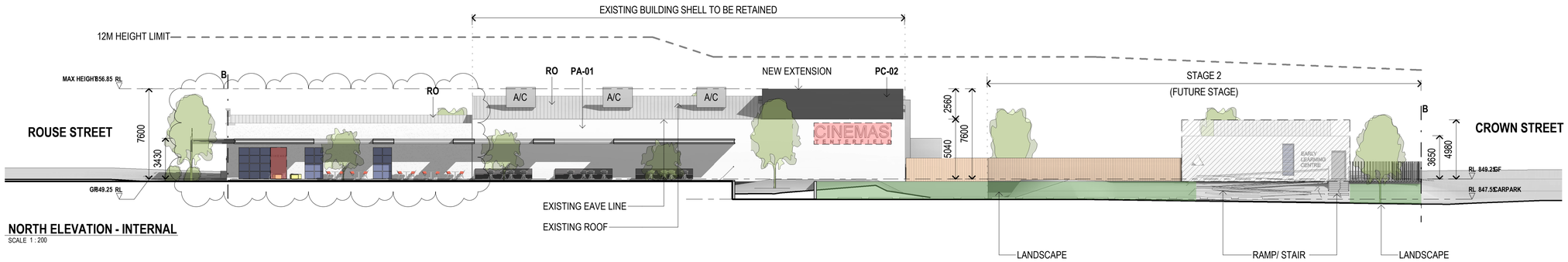
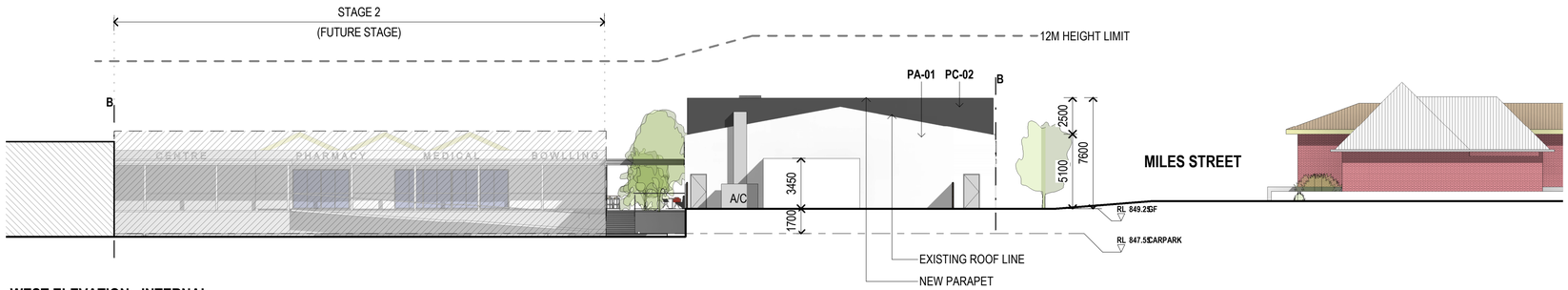


SOUTH ELEVATION - INTERNAL
SCALE 1 : 200



NORTH ELEVATION - INTERNAL
SCALE 1 : 200



WEST ELEVATION - INTERNAL
SCALE 1 : 200

B BOUNDARY

CINEMAS

SIGNAGE LOCATION ONLY,
SIGNAGE DETAIL WILL BE INCLUDED
IN A SEPARATE APPLICATION

MATERIALS LEGEND

CD	CLADDING
GLZ	GLAZING
PA	PAINT FINISH
PC	POWDERCOAT FINISH
RN	RENDER FINISH
RO	ROOFING
MA	MASONRY - FACE BRICKWORK
MET	METAL FINISH

No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21
A	RELOCATE LINK TO EX.CENTRE	28.10.21
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
ELEVATIONS

Date 26.11.21 | Drawn TP

Scale on A1 As indicated

Drawing No. DA06 | Rev B

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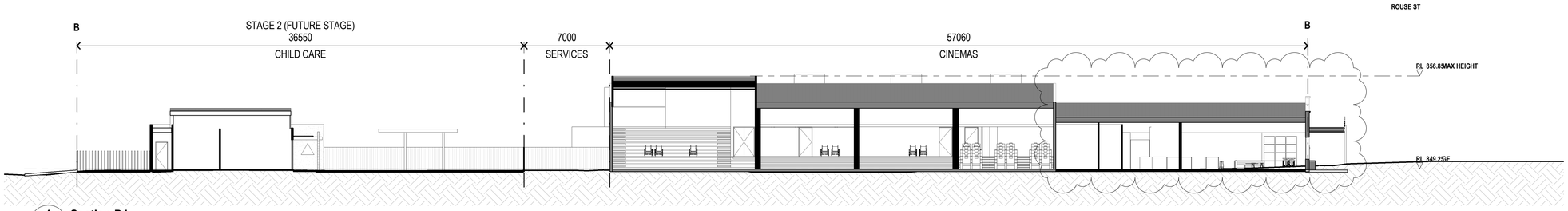
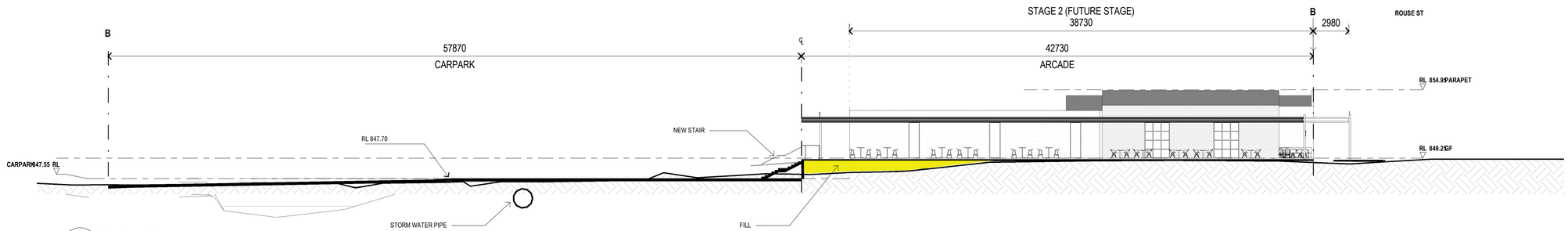


1 Section D1
DA03 SCALE 1 : 200



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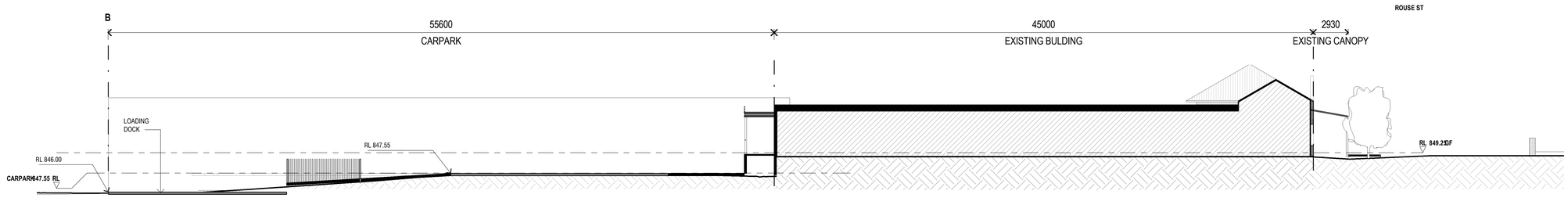
DA03 SCALE 1 : 200



5 Section D5
DA03 SCALE 1 : 200

No.	Revision or reason for issue	Date
-	DA SUBMISSION	07.10.21
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
SITE SECTIONS

Date	26.11.21	Drawn	TP
Scale on A1	1 : 200		

Drawing No.
DA07

Rev
B

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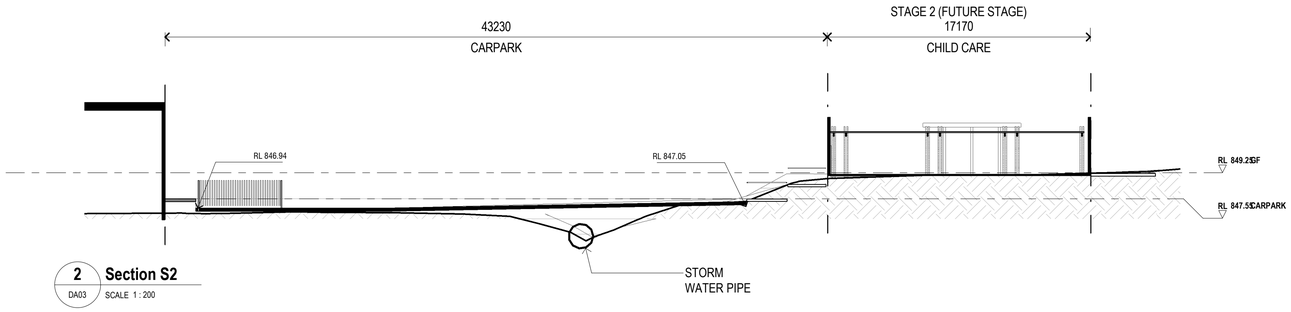
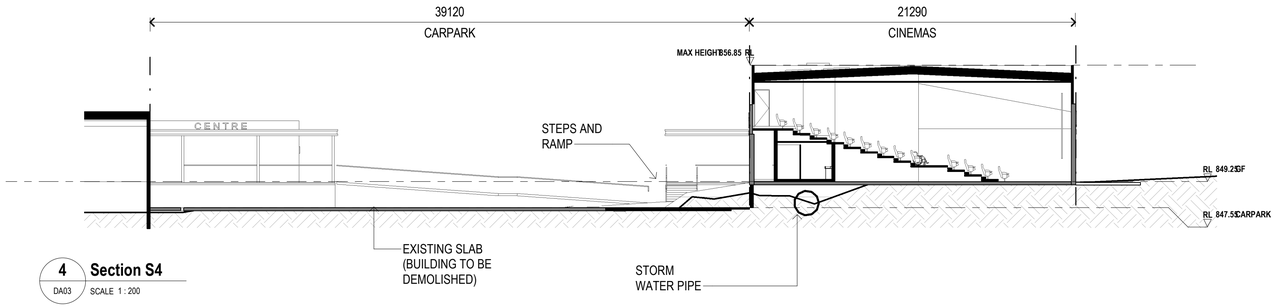
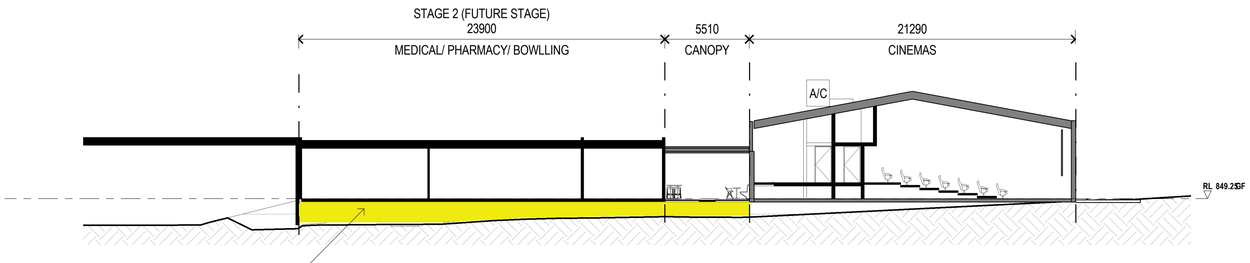


2 Section S2
DA03 SCALE 1 : 200



4 Section S4
DA03 SCALE 1 : 200



5 Section S5
DA03 SCALE 1 : 200

No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
SITE SECTIONS

Date 07.10.21 | Drawn TP

Scale on A1 1 : 200

Drawing No. DA08 | Rev .

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No.	Revision or reason for issue	Date
.	DA SUBMISSION	07.10.21
B	RETAIN FACADE	26.11.21

Client
CHRIS HSU

Project
CINEMAS

Address
148 ROUSE ST, TENTERFIELD

Title
PERSPECTIVE VIEWS

Date 26.11.21 | Drawn TP

Scale on A1

Drawing No. DA09 | Rev B

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CONCEPT DEVELOPMENT APPLICATION 2021.132

LOT 3, DP 1138201, LOT 1, DP 516621 AND LOTS A & B, DP 150057

REDEVELOPMENT OF 148 ROUSE STREET, TENTERFIELD

Summary of Submissions

SUPPORT

1. I wish to write in support of this development proposal. I believe that such a project would benefit our community in the following ways;

   Jobs for local trades people and associated businesses,

   Better leisure opportunities for our young people in and around Tenterfield,

   The inclusion of a medical centre could provide an opportunity to bring in specialist services not currently available at our local hospital. Something that our state government has failed to do,

   The development of a new recreation and leisure hub in our community,

   More choice of dining and entertainment outlets in the town,

   (IN21/7990AB3F)

2. It is with delight and expectation that we received notification of the proposed redevelopment of 148 Rouse Street.

   This seems to be the kind of 'shot in the arm' our town needs post- drought, post- fire, and post- Covid. It could provide employment, community services and entertainment of significant kinds for the people of Tenterfield. Let's not reject an opportunity like this and therefore condemn our town to negative growth.

   We support it wholeheartedly!

   (IN21/12F5251D)

OBJECTIONS

1. As a ratepayer, I wish to lodge my strong objection to the proposed re-development of the ex-Sexton & Green site.
My objections are as follows:

We do not need a picture theatre run on a commercial basis. We already have an excellent theatre in the Henry Parkes complex. This is operated (very efficiently, I might add) by mainly volunteers at no cost to the council (i.e. the ratepayers). Should a commercial (I believe, 4 screen) theatre be established, it will, initially, be popular but the operators will soon realize that it is not commercially viable. They will eventually shut down, leaving a huge amount of vacant floorspace which, to repurpose it, would cost "an arm and a leg".
We do not need a bowling alley. Stanthorpe had one which shut it's doors. Even in the city, bowling alleys obtain the vast majority of their patrons from surrounding schools. With the small population and limited number of schools to support such an enterprise, it too would enjoy a very short life and would, once again become an empty space.

A Medical Centre?? We don't have enough permanent doctors in town to fill it. The existing surgeries are owned by the practitioners and it would be hard to imagine any of them re-locating to a rented premise (brand-new though it may be). I quote Gunnedah as a perfect example of a new medical centre not being able to attract permanent practitioners.

Don't you think that we have a plethora of cafes and restaurants in town as it is??
What we DO need on that site is a motor vehicle dealer and workshop. I bought my new car (a Subaru) from Sexton & Green largely because I was supporting local business and could get the car dealer-serviced locally. Now, I have to travel to either Lismore or Warwick for dealer service and warranty. I am fully aware of the circumstances in which S&G closed their doors, but now, there is not a new car dealer between Armidale and Stanthorpe with Tenterfield having the only USED car dealership between those two points. I realize that council cannot appoint a car dealer to take over these excellent purpose-built premises, but at least it can prevent this "pie-in-the-sky" development that has been proposed from going ahead and destroying any future re-use as a Motor-dealer/workshop complex.
We have never contributed to any political organization

(IN21/1CFDCFD3)

2. Regarding the 'Landscape Masterplan-Site Plan' prepared by Species Landscape Architecture prepared for DA 2021.132. I make the following points for council to consider when assessing the DA:

The plan does not seem to fully consider species selection based on local climatic conditions of Tenterfield. Tenterfield can experience heavy frost and temperatures <100C. Murraya paniculata is not frost hardy and unlikely to survive in these conditions. Jacaranda (Jacaranda mimosifolia) can also be frost sensitive, particularly during the first few years of establishment and may not be a great selection for Tenterfield.
Although Pistacia chinensis has been widely planted as a street tree in Tenterfield historically, this species should not be planted further due to its potential as an

environmental weed on the Northern Tablelands (e.g. known weed around Armidale with seed spread by birds).

I recommend that if the DA is approved, a condition of consent be included to update the landscape plan with alternative selections for the above species that are more suited to the Tenterfield climate and that are not known environmental weeds.

(IN21/7BF9ECC6)

3. For a small town of lower socio-economic status this is an ambitious proposal. The bowling alley, pedestrian connection, car park and tree plantings are attractive. The other proposed facilities will impact similar local businesses under current economic conditions. This proposal must be financially sound to succeed.

The area of the site is 0.57ha not 5.68ha as stated on Preliminary Site Investigation pp.5 & 6.

The current description of the geology is Dundee rhyodacite welded ignimibrite.

Appendix C does not show the proposed colour scheme.

Onsite water collection for maintaining the trees and outdoor cleaning would be advantageous.

7 days/week operation refers to all proposed facilities?

Installation of underground power along Rouse Street is a desirable future project. Will this proposed DA contribute?

The short notice and limited publicity for this significant development proposal is perplexing. Please explain.

(IN21/7B44515A)

4. I am a resident of Tenterfield, having lived here since 2012. I am not against suitable developments in this beautiful heritage town, but I wish to object to what is currently being proposed for 168 Rouse Street.

My reasons for objection include the following:

Tenterfield already has a Cinema and has not a need for 4 more as proposed. Our population is not large enough.

A Bowling Alley is not the type of recreational facility needed for a population consisting mainly of retired people. Tourists can seek such an activity in a large city, not in Tenterfield Shire where our main attractions include National Parks and other outdoor activities.

Pharmacy: Tenterfield already has 2 of these. Another is not warranted

Medical Centre: Tenterfield is more in need of Allied Health Services (eg Podiatry), plus Medical Imaging and X-ray services. Perhaps this is what is intended??

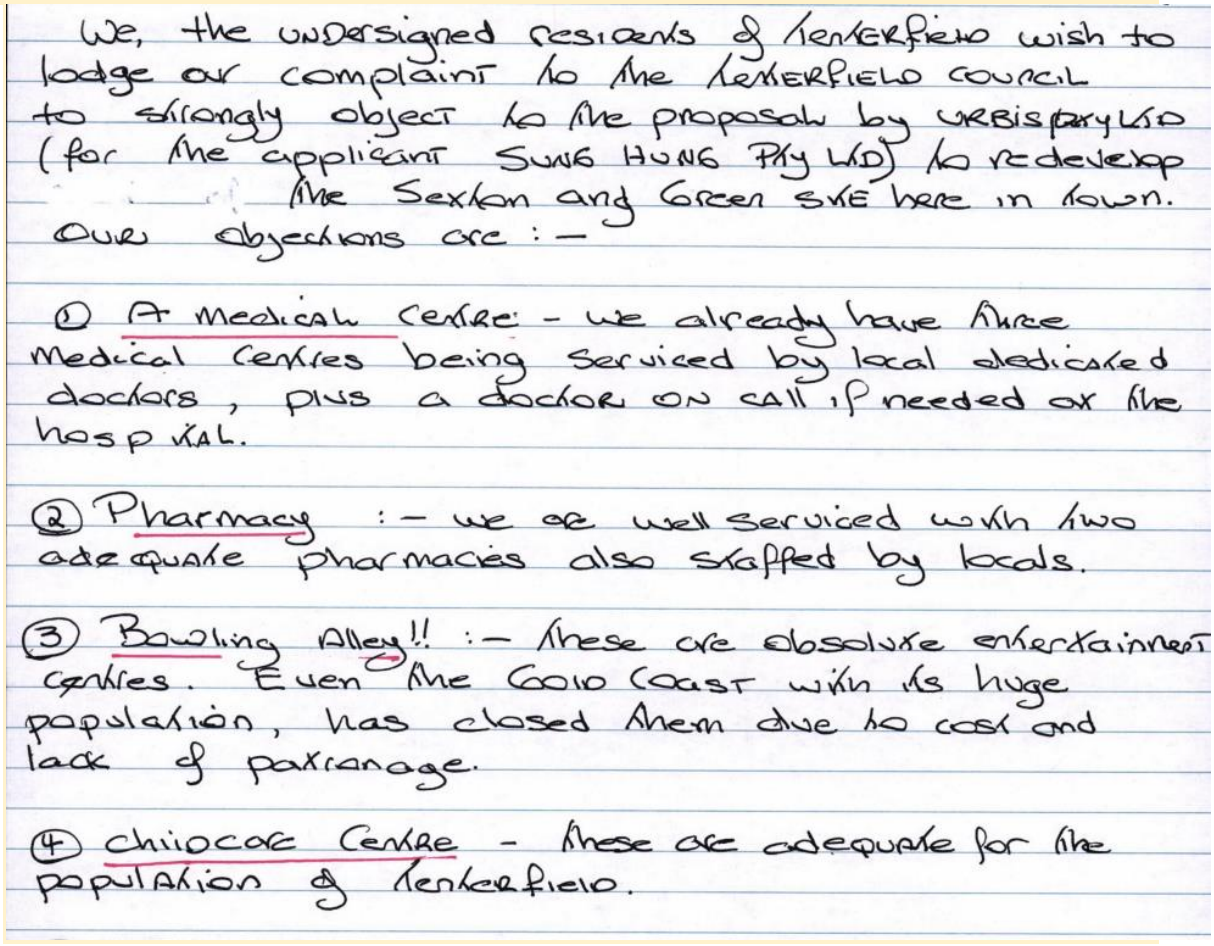
Cafes: our town currently supports many cafes and restaurants, any extra ones would not be viable.

Another Child Care Centre would be great, however the proposed size within this development is not large enough. Nor does it include any outside space which is necessary for children.

To conclude: This DA has been on display for public comment for approximately ONE WEEK ONLY which is not long enough. Much thought and discussion needs to be given before any final decisions are made.

(IN21/785F6131)

5.



We, the undersigned residents of Kenkerfield wish to lodge our complaint to the Kenkerfield council to strongly object to the proposal by URBISparkLTD (for the applicant SUNG HUNG PTY LTD) to redevelop the Sexton and Green site here in town. Our objections are :—

① A Medical Centre - we already have three Medical Centres being serviced by local dedicated doctors, plus a doctor on call if needed at the hospital.

② Pharmacy :— we are well serviced with two adequate pharmacies also staffed by locals.

③ Bowling Alley!! :— these are obsolete entertainment centres. Even the Gold Coast with its huge population, has closed them due to cost and lack of patronage.

④ Childcare Centre - these are adequate for the population of Kenkerfield.

(5) Cinema :- We have one of the best and only cinemas in the district. Compared to other towns with cinemas ours retains its heritage site, has adequate seating, amazing sound, realistic prices and is also managed by loyal local citizens.

(6) Cafe :- You only need to walk around town to see there are adequate cafes serving both locals and tourists.

Are Council going to even consider allowing any part of this development to impact on the heritage status of the town, the rural lifestyle, the quiet streets and the visual appearance of a heritage town ??

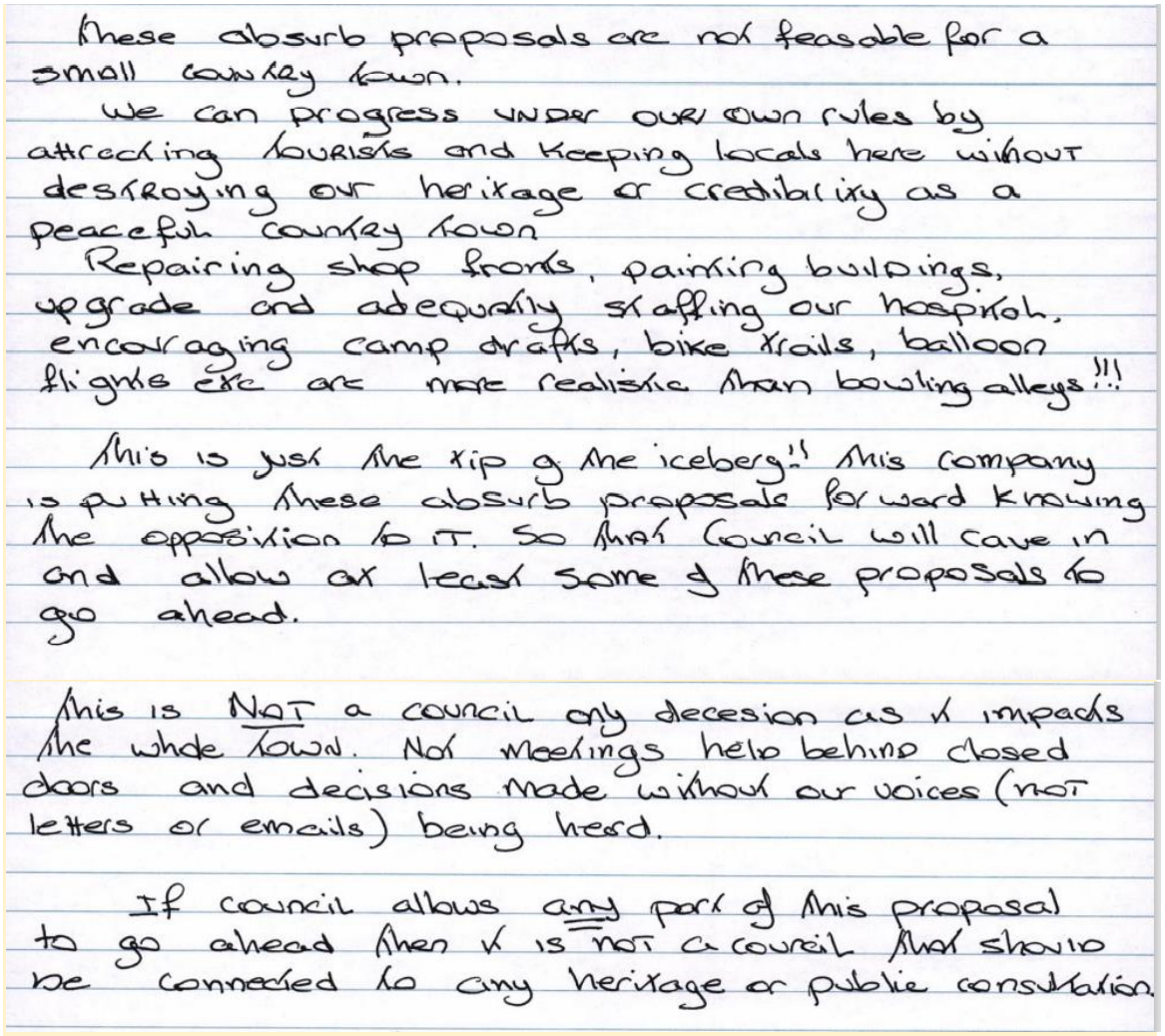
If so, for the sake of money then any advertisements for Tenterfield relating to a relaxed rural atmosphere with heritage value should be removed and re-classed as another Gold Coast with all it's problems.

Not only does ~~to~~ this proposal impact all the residents of Tenterfield but also visitors.

Traffic, parking, water, rubbish removal, sewage road congestion, shop congestion will all be affected.

Council is spending millions of dollars trying to provide adequate water supply now, what happens when any of this proposal is allowed to go ahead??

In June (apparently ..... we knew nothing of this) Council contacted SUN HUNG about intergrating the site into the new development, but apparently their reply was "this site is not listed as a heritage item" !! Since when does a foreign company dictate to Australia what is heritage and what isn't ??? Surely Council does not agree with this?



These absurb proposals are not feasable for a small country town.

We can progress under our own rules by attracting tourists and keeping locals here without destroying our heritage or credibility as a peaceful country town

Repairing shop fronts, painting buildings, upgrade and adequately staffing our hospital, encouraging camp drafts, bike trails, balloon flights etc are more realistic than bowling alleys!!!

This is just the tip of the iceberg!! This company is pushing these absurb proposals forward knowing the opposition to it. So that Council will cave in and allow at least some of these proposals to go ahead.

This is NOT a council only decesion as it impacts the whole town. Not meetings held behind closed doors and decisions made without our voices (not letters or emails) being heard.

If council allows any part of this proposal to go ahead then it is not a council that should be connected to any heritage or public consultation.

(IN21/788ED263)

6. I wish to lodge a submission against the proposed development of the Sexton & Green site, on the grounds that it will turn into a “white elephant” for Tenterfield, this proposal by the Developers is just a long term tax dodge for them, if they have done their homework , there is no way that this town of a population of 3600 people can support a venue that has 3 cinemas , our current cinema (run by council and volunteers)with movies and shows only makes between 70,000 and 89,000 a year, and council doesn’t have to pay cinema staff as they are volunteers. So there is no way that the new 3 cinema’s would make any more money to pay the wages of the staff that you would need to run them.

Also we already have 2 pharmacies and the one in the Coles Complex is only part time because there are not enough customers to support it.

Stanthorpe had a Bowling Alley but is has closed due to poor patronage, the same will happen in time.

Also we already have 2 well established Child care places in town having another one would probably make them unviable.

Shun Hung Pty Ltd will offer business very good leases to get people in , and then in 12 months time the leases will go up , customers will drop off as the novelty wears off, business will find

it difficult to pay the rent and eventually close, leaving more empty shops in town , creating a very big white elephant.

So then Shun Hung Pty Ltd will claim the $9.8Mil as a loss for their Tax rights offs.

This Development would be great in a town with a population of 25,000 + like Armidale, Tamworth, that would be able to support it, not in a town which has a steady population of 3,600.

I hope Council and Town Planning will look at the long term effects of this development and not the short term effects of the building of it.

Looking forward to hear you decision

(IN21/7B74B986)

7.

OVERVIEW

This submission, while critical of aspects of the proposal, is made in the spirit of going further to get it right. The change of use for this site presents an important gateway opportunity for the town centre after the by-pass and is not just a commercial opportunity to be imagined outside the unique cultural importance and potential of Tenterfield.

THE STATEMENT OF ENVIRONMENTAL EFFECTS and

HERITAGE IMPACT STATEMENT

NSW State Heritage Register

The NSW State Heritage Inventory notes the following Statement of Significance:

"Sir Henry Parkes Memorial School of Arts is of historic significance as the venue for the now famous 'Tenterfield Oration' delivered by Sir Henry Parkes on 24th October 1889. The School of Arts also has a long social and cultural association with the construction of Tenterfield as a community and the functioning as a community facility. Architecturally Sir Henry Parkes Memorial School of Arts is a prominent building reflecting the society and era dating back to the 1870s. The building and location reflect the beginning of a community functioning politically and creatively as a whole." https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5051266

This, the principal Statement of Significance for School of Arts, invokes the continuous operations of the building as being significant, not just the building form. Note that "**has a long social and cultural association**" is present tense.

The Urbis Statement of Environmental Effects (SEE), in part 8.9 Public Interest, asserts that "**no adverse environmental, social or economic impacts will result from the proposal**". In its Conclusion, it states "**the proposed works are assessed to have no detrimental impact on on the Town Centre Heritage Conservation Area**". This is questionable. The proposal for four cinemas directly undermines the core viability of the School of Arts, one of only three Items of State Significance in the town and the only one of national significance.

The School of Arts Cinema, as a cultural, community activity, and crucial to the viability of the whole complex, should be considered as being protected by the NSW Heritage Register.

The threat to the School of Arts Cinema should not be considered as a simple economic or retail trade issue, wherein planning law may not be relevant tool for disciplining trade competitors. See below:

- *Kentucky Fried Chicken v Gantidis (1979) 140 CLR 675, in which Stephen J stated that the 'mere threat of competition to existing businesses, if not accompanied by a prospect of a resultant overall adverse effect upon the extent and adequacy of facilities available to the local community if the development proceeded with, will not be a relevant town planning consideration'.*
- *Fabcot Pty Ltd v Hawkesbury City Council (1997) 93 LGERA 373, where Lloyd J applied the Gantidis principle, stating 'economic competition between individual trade competitors is not an environmental or planning consideration to which the economic effect described in s 90(1)(d) [the predecessor to section 79C] is directed. The Trade Practices Act 1974 (Cth) and the Fair Trading Act 1987 (NSW) are the appropriate vehicles for regulating economic competition … It is not part of the assessment of a proposal under the Environmental Planning and Assessment Act for a consent authority to examine and determine the economic viability of a particular proposal or the effect any such proposal on the economic viability of a trade competitor'*

- Indeed, the continuous use of the School of Arts as a successful community facility during its 150-year life is as important as its role in hosting the first public declaration of the idea launched here by Sir Henry Parkes, of a nation emerging from separate British colonies.

Urbis

There is no evidence in the SEE that its author, Urbis, has made any attempt to discuss the matter with the Sir Henry Parkes Memorial School of Arts Joint Management Committee, nor any part of the community. This is despite their flagship mission statement that Urbis has "one simple goal - to shape the cities and communities of Australia for a better future".

The Cinema at the School of Arts has been a 20 year success story, in terms of keeping the building active and socialising volunteers who are new to the town. The threat of the proposed new cinemas to the viability of the School of Arts is a social and an economic issue. As authors of both the SEE and the Heritage Impact Statement, Urbis have made no attempt to reconcile, or to advise on, this important matter.

Moreover, Stephen Davies, Director of Heritage at Urbis, was the Deputy Director and Head of the National Trust from 1988 to 2000. In that role, he oversaw the renewal of the School of Arts for the Centenary of Federation. He managed the National Trust end of the whole project from 1996 through to completion. https://urbis.com.au/people/stephen-davies/

Mr Davies is intimately acquainted with the fine balance and the importance of the Cinema operation to the viability of the School of Arts. It is surprising, to say the least, that this is not mentioned in the Heritage Impact Statement.

A common requirement of a Heritage Impact Statement is: "*How is the impact of the new development, on the heritage significance of the item or 'area' , to be minimised?*"

Since the School of Arts lies within the Tenterfield Main Street Conservation 'Area' and is an Item of State Significance, the Sexton & Green Heritage Impact Statement could be considered deficient in

ignoring the operations of the School of Arts Cinema. The Heritage impact Statement concentrates only on matters of the Sexton & Green building form.

Viability of Proposed Cinemas

As part of consideration of the DA, Urbis should be asked to address the issue of the threat by the Sexton & Green cinemas to the Cinema in the School of Arts.

It would also be appropriate to see an economic Demand Study to prove that Tenterfield could sustain five cinemas (assuming the ongoing viability of the School of Arts Cinema). No doubt the developer has done this homework as part of a Feasibility Study.

Armidale seems to have only one cinema and that is a twin (and that ,with a huge student population ?) Since the unfortunate demolition of the FJ Madigan Roxy Cinema, Glen Innes only has the Chapel Theatre (in an old church which may be more like the Tenterfield School of Arts). To get any where near what is proposed we would need to go to Tamworth, which has a 6-cinema complex in the shopping centre.

Council Implicated?

It will be important to know whether the Sir Henry Parkes Memorial School of Arts Joint Management Committee has a view on this proposal and whether Council's involvement in the Committee might even represent a conflict of interest in objectively processing the DA?

Credibility of Heritage Impact Statement

The Sexton & Green Heritage Impact Statement, in its Historical Overview (pp 6&7) and Heritage Context (pp9&10) quote, verbatim without any commentary or interpretation, "the State Heritage Inventory form for the Town Centre Heritage Conservation Area." Neither sections of the report contain any professional opinion and both fail to mention the three items of State Significance in the town.

The Historical Overview also features six photographs from the State Libraries of Queensland and New South Wales (p8 - included here as Appendix A). While these photographs usefully serve to implicate the town centre as being relevant to the DA, the annotation of the photographs has flaws that leave us wondering about the accuracy of Urbis' insights into the issues more broadly.

These photographs invoke the whole of Rouse Street into consideration, most of which are incorrectly dated.

Figure 20 is not 1887.
Firstly, the photo is back-to-front, but locals can flip it in their minds. The view is looking north from halfway up Stannum hill. We can see the Post Office on the left with its clock face yet to be installed and the School of Arts in its foreground. This would date the picture around 1881-82. We can see the original Royal Hotel on the ridge to the left. The Sexton & Green site is therefore, though confusingly, on the right side the bottom of the hill, just beyond the bridge over the watercourse.

Figure 21 is not 1895.
The photo was taken in 1902. The Boer War Memorial entry to the new Main Hall can be seen in the foreground under construction - the Hall was completed in 1903. The Boer War ran from 1899 to 1902.

Figure 22 is not 1870.
It was taken in 1875 after the Commercial Hotel and the Maryland Store were completed.

Figure 23 is not 1870.
The Criterion Hotel, with its 2-storey addition is seen in the distance, was later than this date.

Figure 24 is not 1910.
If the Heritage Consultant had visited the town they would have seen 1914 built into the facade of the Central Arcade building and 1911 on the Commercial Emporium.

Figure 25 shows the parade of the 1921 and is not "the Red Cross Queen".

The Tenterfield Star, Monday, November 28 said "and then, the the Lancers ushered in The Returned Soldiers Jubilee Queen Court. This was a handsome representation of the Blazing Sun badge of the Australian Soldier at the base of which sat Mrs Bruxner (the Soldiers candidate). She was attended by numerous ladies in waiting in the dress of Red Cross nurses."

Also in this photo are the original Lyric Picture Theatre, Sing Sing & Co - The Noted Cheap Store and the Tenterfield Star, all featuring their original verandahs which are about to be reinstated by Tenterfield's National Monument Association.

Failure to Consult
All of this information is known by Tenterfield's Family History Group, which is only too happy to share, if ever they are asked. Googling the picture archives of the State Libraries of NSW and Queensland is something we can all do. A paid Heritage Consultant should be looking more deeply than the misinformation attached to these images.
Community consultation like this can occur before Development Applications are lodged. External consultants frequently neglect to ask if any local knowledge might be available. The developer, who owns the local shopping centre, might also have thought to ask.

Impact Assessment
The Impact Assessment concentrates mainly on the value of the Sexton & Green building and whether it could be demolished. There is very little commentary on the merits, or otherwise, of the design of the proposal. Within its critiques, the Impact Assessment says:

"The proposed development remains at one storey and **features a series of gable roof forms** along those frontages which present to, and interact with the public domain (Miles Street and Rouse Street)."

There are only two buildings in the Town Centre Heritage Conservation Area with gable roof forms.:

- The Medical Centre at 357 Rouse Street (rated as a Background Element by Suters Main Street Heritage Study);
- and Willowtown Tyre Service at 306 Rouse Street (rated as a Neutral Element by Suters Main Street Heritage Study).

Generally the Town Centre features:

- steep hip roof forms from the time before the Railway (1886) when only locally-hewn oak shingles were available for roofing materials;
- skillion roofs hidden behind civic-minded parapets, enabled by corrugated iron after the Railway arrived.

Gable roof forms are not part of the language of the Town Centre.

GENERAL CONCERNS

General Viability

The physical configuration of the proposal seems sound, with buildings along Rouse Street and Miles Street screening a carpark behind.

The commercial mix of the proposal is unusual, combining leisure activities with medical and childcare.

The development of the adjacent Henry Parkes Plaza, presumably by the same developer, has dramatised the importance of viability. By relocating Country Target to an oversized premises, which later closed, the town has been left without critical retail amenity wherein it is now necessary to leave town to buy underpants.

The still empty space within that centre begs the question as to why it could not be adapted to a medical centre.

The inclusion of a pharmacy requires clarification.

The Australian Government Department of Health - Pharmacy Location Rules - Item 130 (a) states that for a new pharmacy, "the proposed premises are at least 1.5 km, in a straight line, from the nearest approved premises;"
https://www1.health.gov.au/internet/main/publishing.nsf/Content/DDB409EBB18FCE8FCA257BF0001D3C0C/%24File/

Pharmacy%20Location%20Rules%20Applicants%20Handbook%20December%202018.pdf#page36.

Item 133 covers new pharmacies in a designated complex (small shopping centre). In this case the new pharmacy must be "at least 500 m, in a straight line, from the nearest approved premises".

This proposal is 280 metres from Amcal so the only pharmacy that would be entitled to locate here would be Amcal itself. Their current shop is 320 sqm in area and the proposed new one at Sexton & Green is only 180 sqm. Coupled with the fact that it's invisible from Rouse Street and opens only onto the car park, it's hard to imagine this being a good location.

Staging

Why is the DA set up in 2 stages? Stage 1 proposes the cinemas with car parking and "2m high black hoardings" around the Stage 2 sites. Black? That's a very specific and pretty pessimistic colour while we wait for the Stage 2 DA. It's almost designed to trigger impatience.

If the Stage 2 currently proposed proves to be unviable at a later date, it will be important that this consent (should it be given) contains protections against the approved land uses (eg restaurant) being interpreted down the track as fast food and prosecuted through the Land and Environment Court.

Council should be aware that a McDonalds fits neatly on the proposed medical, pharmacy and bowling site, with enough space to its north for a drive-through to Rouse Street. A direct exit onto Rouse Street would likely be capable of approval after the by-pass is constructed.

The proposed retention of the floor slab of the Repair Workshop in Stage 1 suggests an interim solution with probable changes imagined in the car park design and traffic management for Stage 2

Appendix A

URBIS

Figure 20 Main street of Tenterfield 1887.

Source: John Oxley Library, State Library of Queensland

Figure 21 View along Rouse Street c. 1895.

Source: State Library of New South Wales

Figure 22 Rouse Street looking south, Tenterfield c.1870.

Source: State Library of New South Wales

Figure 23 Rouse Street looking north west, Tenterfield c.1870.

Source: State Library of New South Wales

Figure 24 Rouse Street, looking south from near High Street, Tenterfield c.1910.

Source: State Library of New South Wales

Figure 25 Red Cross Queen procession in Rouse Street, Tenterfield.

Source: State Library of New South Wales

P34861_148RouseStreetTenterfield_HIS 8

(IN21/7B022FE1)

8. I am not averse to change, quite the contrary, and in the time, I have lived here there has been extraordinary change and I applaud it. Tenterfield is unique and every time I return home from a long drive and enter our town with its fairy lit main street, I am proud of this place and adore the fact, I call it home. I am not a fan of council, yet I am not here to criticize it either. Despite my feelings, it has done an extraordinary job on creating a main street that embodies our small-town country charm.

In the few months since I have had my gallery open, I have been visited by multiple newcomers to town whether they are living here permanently or dreaming of opening an endless list of Air BnBs. I hope they stay and fall in love with this place like I do and call themselves Tenterfieldians, visit our eclectic range of shops and cafes and entice a

countless list of visitors here to play golf, to shop, to meet the volunteers at the cinema and railway centre, to climb Bald Rock and to soak up an atmosphere that is enticingly charming. They all say the same thing, that there is something about Tenterfield that attracted them because it offered a way of life they felt was lost in the city. In my time at the Visitors Centre many moons ago, I was amazed at the people who came here for the singular purpose of shopping primarily because our incredible range of shops are owner operated with people who can tell you what suits you and source a range of products that are not generic and provide a service that is distinctly ours.

I have heard that the owners of Coles are the people who have purchased this site. Good on them for wanting to invest in this town. But they are also the same people who are unable to provide clean, functioning public toilets for their current centre nor find sufficient tenants to occupy their existing spaces. Today when I drove into the Coles carpark driveway, there were potholes in the driveway and there is a lack of care about the centre and a lack of a desire to make the place look appealing. I really think that that should not be forgotten.

I know Target did not work, but perhaps that was more because they were unable to provide an inventory that was applicable to the destination of their stores. I was always shocked when you would go into Target and they did not stock the appropriate colours of school socks and items that were needed for the schools in our town. Even before Target closed you had to go over the border to get raincoats when it rained, school items that suited our schools or cold weather jackets when it was freezing because head office told them it was time to stock for spring. It is easy to blame the fact that small towns are not spending, but harder perhaps for them to accept that they made it impossible to spend any money.

The other thing I think we need to understand is that if this DA was to go ahead, then the construction of this site which would involve an inner-town dust-bowl for months would coincide with the world reopening. We will be competing with $1000 return tickets to the UK, $300 return tickets to NZ, $100 return tickets to Bali and a Northern QLD tourism industry that is going to be fighting for its very existence. God only knows what will be on offer to entice people to sail and swim the Barrier Reef and explore the Atherton Tablelands and ride the Cairns Sky Rail.

I wish I could win lotto so I could buy the site and create a space which embraced our burgeoning artistic community or build an incredible permanent producer's market site or do something that allowed for a development which embraced this community without sacrificing its soul.

Who will fill the tenancies of this place? Will we see our gorgeous little cinema and performance space close because it can't compete with a new mini complex that you can find anywhere? Will the existing child-care centres close so they can move? Will Mondel or Pilgrim shut their doors so they can move into new bright spaces while leaving empty character filled spaces along our main street?

Gold Class Cinemas and a glass of wine is a nice idea, but is that the sort of thing we need when you can get it in almost every big suburb of Brisbane and Sydney? I would rather be served by volunteers who know your name and are not nearly as efficient as Hoyts or Birch Carrol and Coyle workers, but entirely more amusing and charming. Why travel to Tenterfield when it is just like every other place with its mini complex, fluro lit car park and generic cafes and shops?

Development is great, investment is grand but we also presently do not have a functioning economic or tourism council department in Tenterfield due to an ongoing staffing crisis so who is responsible for assessing the long-term impact something like this could have on town?

I am always delighted to be wrong and would hope that if this goes ahead then it is a good thing for town and is a positive wonderful addition. I just think we need to be careful and not sacrifice our long-term potential for a seemingly good idea that could in fact be an eye sore and ultimately cost us our unique character.

(IN21/D2701AE)

9. We are all wondering why a council would give the green light to this project in our town when we are all struggling to buy the every Day needs of shops and any electric white goods we have NO shoe shops, we have no linen shops, we have no MECHICIAL garages to service our cars. THEN we have NO DRS. BUT we see this dream of a council SEES THE DOLLARS SIGNS and we are just forgotten.

We JUST can't see why the council would go against the school of arts with the picture theatre and all the history in such a nice central building with a nice eating place beside it WHY?

We ALL say we have watched so much of our town just go away and our shops become less by the day and we now ask WHY?

We see THAT THE PARLIMENT want the city people to shift to the country but WE DON'T have the everyday needs for these people and the medical people DON'T have the time to see any more elderly people any more.

I Watch people go to the DRS across the road at seven o 'clock in the morning in the cold and the wet and are very elderly people SO we don't see e to their needs very much at ALL.

WE SEE all this about the country towns wanting young people we always wanted young people to work our land but WE CAN'T GET THEM HERE WITH OUT HOUSING and medical treatment for their families.

So as I have been known for speaking OUT WE THINK ITS TIME WE ALL spoke out AS ITS NOT WHAT THIS TOWN NEEDS. JUST ask THE LOCAL PEOPLE and the answer is just the SAME see to these things first.

(IN21/78C7E7FD)

10. I recently found out about the huge cinema, cafes, and bowling being considered at the corner of Rouse where the Saxton and Green building now sits. Some are talking about this and it isn't positive. I'm very concerned about noise, and alcohol use. Are the police going to be able to deal with the traffic, noise and people? Will this development be just another tourist camp? I do love this town of Tenterfield. I moved from Ballina to get away from "developments" and overcrowding. Will this project be a plus to the town or a noisy, dirty, hangout for tourists and trouble makers. I do hope the Tenterfield council looks into this very carefully. Not all that shines is golden.

(IN21/62653DB6)

11. I would like to lodge a submission regarding Development Proposal - Application (DA) 2021.132

I am concerned about and therefore object to this proposal on the grounds that it - includes:

a) a cinema complex. Tenterfield has a very good cinema and I cannot see the logic in allowing another cinema.
b) a pharmacy. There are already two pharmacies in Tenterfield. Again I cannot see the logic in allowing another pharmacy.
c) Cafes. Tenterfield has nine cafes. There could be eleven, two have recently closed. How many cafes does a town this size really need? What kind of cafes are they proposing? One of the most appealing features of Tenterfield is the fact that multi national fast food franchises are not available/present in our town. Is this development planning to change this desirable feature of our town?

I feel that there are many unanswered questions about this proposal and that the citizens of this town are being left in the dark and swept up in the excitement and hyperbole that goes with the developers having a $10,000,000 purse.

(IN21/6E4E6133)

12. Whilst we are aware that the site in question is a prime site for development we strongly feel it must be well thought out, appropriate, inclusive of all and be a long term asset to our town.

* Medical Centre

We have two medical centres and a doctor's surgery. Council would be well aware of how difficult it is to attract good doctors to small country towns. It has taken many years to get doctors to the centres we have. We don't think another one is required and feel it will just become another empty building.

* Pharmacy

Tenterfield has a pharmacy in the main street and an offshoot of same in the Coles complex. Unless a guaranteed 24hr service pharmacy was forthcoming then this too is overlap of what we have and what we need. Another empty building.

* Child Care Centre

The present child care centre has informed me that they never have any more than one or two on the waiting list and they struggle to get staff so why would we need another one? We just don't have the population. Another empty building.

*Four Screen Cinema (This is a gob smacker!)

We have a beautiful historic building which provides a perfectly good cinema with all the latest movies on offer. We go regularly and have never found it full to capacity, in fact the opposite is the norm. A four screen cinema is definitely overkill and unwarranted. Another empty building.

*Cafes

We have 6 cafes in the main street and pubs that provide coffee and lunches. Our main street is beautiful and our cafes and pubs cater very well for the locals and visiting tourists. Whilst these businesses have struggled due to Covid, we feel it would be very unfortunate if Council made life more difficult for them by passing this DA. Whilst we don't expect a developer to have the town's best interest at heart, or indeed to secure without doubt the proposed

businesses they have named for these buildings, we trust Council will examine this DA carefully and see that it is an overlap of what we already have and as such will not be in the long term interest of our town. It will take from our main street and we will just look like another dying town. In fact it looks very much like a divisive proposal leaving us with 'white elephants'.
A new proposal is required.

(IN21/6E6E48F9)

13. Thank you for your letter of 19 October 2021 advising of the proposed redevelopment of the former Sexton & Green site together with details of the process for submissions on the proposal. I wish to advise that we object to the proposal as submitted, on the grounds it will adversely impact on our quality of life as a result of increased noise and increased traffic at our residence.

1) Noise

We live at 79 Miles Street, one of three residential properties directly opposite the proposed new cinemas which form the main part of the proposal. The previous business at the premises (Sexton & Green) operated from 8am to 5pm Monday to Friday and 8.30am to 11.30am Saturday, generating the usual noise associated with workshop activity, deliveries etc. At nights and at weekends there was no noise except from the occasional arrival of a recovery vehicle dropping off a car for repair, The proposed four cinemas (and the bowling alley proposed as part of Stage 2) will presumably operate late into the night, subjecting us to ongoing noise at hours of previous quiet. I am not familiar with the level of acoustic damping and noise attenuation techniques employed in cinema construction, but I suspect the main focus is on minimisation of sound leakage between adjacent cinemas, rather than outside the main building. My experience with bowling alleys is that the noise of pins being struck and re-set and the music being played is rarely contained within the premises.

2) Traffic

I found the Traffic Engineering Assessment supporting the Development Application to be fairly superficial and containing a number of errors which I think detracts from the overall reliability of its findings.

Table 4: Car Parking Assessment calculates a Parking Requirement of 13 spaces for the proposed Medical Centre of 392.8 sq m based on 4.0 spaces per 100 sq m. The simple multiplication shows the Requirement clearly should be 15, giving a Total Parking Requirement of 77 spaces. Even then, using 74 spaces required, the Assessment subtracts the proposed Parking Provision of 64 spaces to arrive at a Shortfall of 8 spaces. The correct Shortfall based on the maths should be 13. While this may appear to be two almost trivial mistakes, as I indicated, it does not give much confidence in the overall assessment. This is probably a moot point, as the Assessment goes on to state with regard to the bowling alley and cinema that *"... the peak demands for these uses would be highly unlikely to coincide with the peak demand for other uses on the site ..."* , and it provides the basis for that statement in Table 5: indicative Variation in Car Parking Demands (albeit using the incorrect total from Table 4).

My main source of concern is with respect to the additional traffic on Miles Street likely to be generated by the proposed development.
Table 6: Expected Traffic Generation uses Traffic Generation Rates "*based on RTA Guide to Traffic Generating Developments (2002 or 2013 where relevant*)" to develop predicted traffic volumes for AM, School and PM peaks of 88, 95 and 94 vehicles per hour respectively.
The analysis following this Table (Distribution of Traffic) states that "*Traffic from the development is expected to be distributed 60% to/from the north and 40% to/from the south*." I could not find any basis to this statement, but possibly it was based on the residential densities north and south of the site. The chapter goes on to state that "*Whilst the majority of the traffic would be distributed via Rouse Street, a proportion would occur via the local rood network to the west of the site*." The Assessment goes on to use these forecasts to conclude that "*intersection upgrades/modifications are not required...*". The two intersections are referred to as *"... the intersection between Manners Street/Rouse Street and " the intersection between Manners Street/Rouse Street'* , yet another error as the second reference is clearly meant to be Miles Street/Rouse Street.

Aside from the poor attention to detail and rather arbitrary (or at least unreferenced) assumptions concerning traffic development, the Assessment makes no attempt to quantify or even broadly identify any potential impacts on the other three streets around the proposed development, namely Crown Street, Miles Street and Manners Street, focussing instead entirely on Rouse Street and the two intersections.
Aside from the limited street parking on Rouse Street, almost ALL traffic associated with the development will move initially via Crown Street, then become distributed through the broader local network via Miles Street and Manners Street. The statement I quoted above from the Assessment report that "*Whilst the majority of the traffic would be distributed via Rouse Street, a proportion would occur via the local rood network to the west of the site*" appears almost a 'throw-away' line to dismiss any local impacts. I suspect that something like only !0% of the traffic would be distributed via Rouse Street, with 90% occurring via the local road network, using Crown, Miles and Manners Streets most heavily. lt would be interesting to see some modelling from the consultants to justify the underlying assumptions they have made.

As a personal exercise my wife and I conducted a vehicle count outside our premises on Monday 25 October for 11 hours between 7am and 5pm to come to some rough determination of current traffic volumes. While this is obviously a one-off unofficial set of data and without the impacts of the previous workshop operations across the road, it gave us some sense of the traffic environment we have been living in for the past three years. What I found interesting was that the only real 'peak' in traffic flow was from 3pm to 4pm with 138vph. For the remaining 8 hours between 8am and 5pm, the numbers were fairly consistent with an average of 93vph. For the hours either side of this band, 7am to 8am showed 35vph, and 5pm to 6pm had 49vph. The directional split was 670/o travelling in an easterly direction. Obviously a professional count using a ribbon/tube counter over a period of a week or more would be a more rigorous evaluation of traffic movements, particularly if it included Crown Street and Manners Street, but in the absence of any such information or indeed any comment at all on local traffic impacts, the above personal count at least provides some better-than-anecdotal data to allow us to assess the proposal and its impacts on us.

The Traffic Engineering Assessment document states at the end of page 19 as dot point 2 - "*Maximum of 38 vehicle movements per hour through the intersection between Manners [sic] Street/Rouse Street*'' . As indicated above, I assume this is an error as the dot point 1 references the Manners Street/Rouse Street intersection with a higher figure of 57vph, and this second dot point is almost certainly meant to refer to the Miles Street/Rouse Street intersection. If this is the calculated additional traffic through the Miles Street/Rouse Street intersection likely to be generated by the proposed development, then this is also the additional traffic passing along Miles Street between Rouse Street and Crown Street, i.e. past the three residences at77,79, and 81 Miles Street. While 38vph appears to be insignificant, it is far from insignificant in relative terms, when the existing PM peak volumes are only around 138vph, and other volumes throughout the day (including what should be the AM and School peak hours) average even less, at 93vph (based on our personal count).

This amounts to a likely percentage increase in traffic volumes of 27% and 41% respectively due to the proposed development. If numbers were available for off-peak times, I suspect the percentage increase would be even higher.
ln summary, while we have no problems with parts of the proposed development, and believe many residents (including ourselves, but particularly those with children) would greatly benefit from elements of it, we wish to lodge our objection to the proposal as submitted to Council on the grounds that it will have a significant detrimental impact on our quality of life at our present address adjacent to the proposed development, both through the noise generated by the cinemas and bowling alley at night, and through the significant additional vehicular traffic to be generated by the activities on the site.

(IN21/6C8D0977)

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Tenterfield Shire Council
PO BOX 214
Tenterfield NSW 2372

Dear Ms Davidson,

DA2021/132 - 148 ROUSE STREET TENTERFIELD

This letter has been prepared by Urbis Pty Ltd on behalf of Shun Hung Pty Ltd, the Applicant of development application DA2021/132 to Tenterfield Shire Council (Council) for the concept proposal and detailed development application for a cinema and mixed-use development at 148 Rouse Street Tenterfield.

This response address the heritage referral comments provided by Council on 3 November 2021 and provides a response to the public submissions received during the notification of the application.

Referral comments were received from Transport for New South Wales (TfNSW) on 18 November 2021. The Applicant is waiting for confirmation from Council on the specific matters within the TfNSW letter that require response.

This letter is supported by an updated heritage impact statement (HIS) and memo prepared by Urbis Heritage at **Attachment A** and **Attachment B**.

HERITAGE

Deborah Wray of Clarence Heritage reviewed of the Urbis Heritage Impact Statement (HIS) and provided comments dated 3 November 2021

The Heritage Referral recommended that further consideration be given the retention of the existing building. Following receipt of the comments, Mills Gorman Architects prepared amended architectural plans integrating the façade of the building into the development, as well as an awning. This will preserve the historic fabric of the town centre and provide weather protection. These were submitted to Council on 29 November 2021.

A meeting was subsequently held on 14 December 2021 between the applicant, Urbis and Deborah Wray to discuss the amended plans. Council supported the retention of the building façade as it maintains a linkage to the historical significance of the site. It was agreed that an appropriate response to the heritage comments would be to revise the existing HIS to provide a more detailed assessment of the historical significance and fabric of the building. As the proposal will retain the existing slab, it was agreed that archaeological investigation was not required.

The updated statement of heritage impact considers in greater detail the significance of the HCA and heritage items in the vicinity of the site and is submitted as **Attachment A.**

PUBLIC SUBMISSIONS

The application was also placed on public exhibition between 19 October 2021 to 2 November 2021. During this period, the Council received a total of (15) submissions in relation to the application, of these (2) were in support and 13 were objections.

The submissions received were from community members in the Tenterfield region.

The main concerns raised by the community include the following:

- Adverse impacts on existing business in Tenterfield (competition impacts)
- Heritage impacts
- Amenity impacts (noise, traffic)

Table 1 Summary of Public Submissions

Matter	Response
Economic Impacts	
Town is not big enough to support a proposal of this scale- more suitable in a larger town like Armidale / Tamworth.	Council has not requested an economic demand assessment to assess the impact of the proposal. The proponent has determined that the site has potential for the development is its current form and will manage the economic feasibility of the proposal.
The proposed development will not be commercially viable/ successfully. Will end up with empty shops.	
The proposed four screen cinema is unnecessary as there is an existing cinema in the town.	Noted. the proposal does not intend to supplant the existing cinema offering in the town, rather it offer a different experience for residents and visitors.
Support for existing cinema in School of Arts Building. This cinema is staffed by volunteers and provides an experience not found within a large chain.	
The proposal will undermine the viability of the cinema within the School of Arts building.	The submission contends that potential adverse economic impacts on the existing School of Arts operation may result in adverse heritage impacts, i.e., damage to community if the operation of the cinema within the School of Arts building is impacted. The proposed use does not intend to undermine the existing School of the Arts operations. The proposed cinema is a different proposition to the current operation run

Matter	Response
	out of the School of Arts building and will offer choice to the community.
The Cinema operation is critical to the viability of the School of Arts and therefore has the potential economic and social impacts.	A memo has been prepared by Urbis Heritage addressing this matter – refer **Attachment B**. The ongoing use of Tenterfield School of Arts does not exclusively rely on functioning as a cinema.
The proposed facilities will adversely impact similar local businesses.	Competition is not a relevant planning consideration.
Town needs basic services including doctors, mechanic/ car dealership.	The proposed uses are permissible eon the site and have been co located to create a multi-purpose development which will offer recreational, health and entertainment facilities to the town.
Medical centre will not be able to attract doctors / is unnecessary	Noted. The presence of other medical centres does not prevent the establishment of another facility.
The town is in need of allied health service e.g., podiatry rather than a medical centre.	Noted. There is the potential for allied health services to occupy the future space.
There are already two pharmacies in the town and there is no need for another.	Noted, however competition is not a planning consideration.
Queries whether the proposed pharmacy is far enough away from existing pharmacies to meet the requirements of the Australian Government Department of Health - Pharmacy Location Rules.	Noted, the pharmacy will be subject to a future detailed DA and will be appropriately sited in accordance with relevant legislation.
A bowling alley is not a suitable recreational use for the demographics of the population	The bowling alley will provide a new recreational offering to the town. It is intended to appeal to a broad demographic.
Bowling alley will not be viable.	The proponent has determined that the site has potential for the development is its current form.
Town does not need additional cafes and restaurants	Noted, however the café proposed as part of the development is intended to directly support the operation of the cinema and therefore this needs to be located directly adjacent to that use.
One of the most appealing features of Tenterfield is the fact that multinational fast-food franchises are not available/present in our town.	The development does not propose a fast-food franchise.

Matter	Response
Is this development planning to change this desirable feature of our town? Suggests that a Mc Donald's restaurant would fit neatly onto the part of the site designated as Stage 2.	
Town does not need another childcare centre. An additional facility would make the two existing centres unviable.	Competition is not a relevant planning consideration.
Support for childcare centre.	Support noted.
The childcare centre should be larger. It does not include any outside space which is necessary for children.	The proposed outdoor area meets the relevant guideline for provision of outdoor space for the proposed number of children.
Heritage Impacts	
The Heritage Impact Statement (HIS) should address the issue of the impact of the development on the heritage significance on the School of Arts building and the area.	A revised HIS has been prepared to address comments provided by Council's heritage advisor – refer **Attachment A.**
The HIS contains errors in the references to photographs.	Urbis has reviewed the photographs and sources in question and finds them to be consistent with the records held by the State Library of NSW and the State Library of Queensland – refer **Attachment B.**
The heritage consultant should have consulted with local heritage/ history groups and sought a deeper understanding and local perspective on the heritage significance of the context.	Urbis has used established sources and repositories and relied upon the dates and attributions of those repositories. The revised proposal includes the retention of the historic façade which provides an interpretation of the historical use of the site as a motor garage and will provide a historical layering of fabric. The revised HIS also recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering.
The HIS does not consider in any detail the appropriateness of the design of the proposal within the town centre. The reference to gabled roof forms being the predominant built form is incorrect.	The revised HIS finds that the proposed built form (inclusive of the retention of the façade) is consistent with the scale and form of the town centre. It is noted the heritage referral comments from Council are supportive of the proposed built form.

Matter	Response
The development will detract from the heritage and the quiet character of the town.	The proposal has been designed to be sympathetic to the architectural of Rouse Street and the town. The proposed uses will provide recreational, entertainment and services to add to the diversity of attraction within the town.
The proposal is not in the long-term interest of our town. It will take from our main street and we will just look like another dying town.	The proposal represents a renewal of a neglected site and a diverse proposal which will provide a variety of recreational uses and services to the town. The proposal demonstrate confidence in the future of Tenterfield.
Environmental Impacts	
Concern about impacts on water supply.	Existing services to the site will be augmented as required to support the development. There is no indication that water supply to the development site is likely to be an issue.
The development will have adverse traffic and parking impacts. The traffic report submitted with the application is superficial and has errors, e.g., in the calculation of parking requirement. The traffic report need to revisit assumptions about the distribution of traffic from the development. Proposal will generate significant additional traffic.	The traffic report will be revised to address comments from Transport for New South Wales and Council. As part of this update the comments from the public submissions will also be addressed.
Concern about noise impacts arising from the proposal; noise from patrons leaving, noise from bowling alley, noise emanating from cinemas	Patrons existing the cinema in the evening will access the carpark from within the site. Signage will be used encourage patrons to respect their neighbours and leave quietly. The bowling alley and cinema building will be designed so that sound is contained within the buildings. Detailed acoustic specifications will be prepared as part of the construction certificate documentation.
Concern about alcohol use associated with the proposal	Any alcohol sales and consumption will be subject to appropriate liquor licencing. The development does not propose a pub or bar with a specific focus on alcohol sales.
Concern about light spill from the proposal affecting residents opposite the site.	The DA was submitted with a lighting design prepared by Lighting Partners Australia.

Matter	Response
	Directional lighting (pointing down) was selected for the Miles Street elevation. There will not be obtrusive light spill impacts on adjacent residential areas.
Construction Impacts	
Development would create dust and disruption to the town centre	Construction impacts will be managed by a construction management plan which will address matters such as traffic management, noise and dust suppression.
Site details	
The area of the site is 0.57ha not 5.68ha as stated on Preliminary Site Investigation pp.5 & 6.	Noted, this was an error.
The current description of the geology is Dundee rhyodacite welded ignimibrite.	Noted.
Appendix C does not show the proposed colour scheme.	Appendix C, the architectural plans contain renders that demonstrate the proposed colours and materials for the proposal.
Queries why the development is proposed to be staged.	There is an operator engaged for the cinema therefore this part of the development will be undertaken first. The proposal is being staged to allow for further input from future tenants on the design/ fitout of the pharmacy, childcare centre, bowling alley and medical centre. The proposal provides a maximum building envelope which provides certainty to Council and the public about the bulk and scale of the built form that will be located on the site.
Landscaping	
Species specified on the landscape plan are unsuitable for local conditions or are potentially invasive species. Recommend a condition of consent requiring reconsideration of species suitable for the local area.	The applicant is amenable to reviewing the proposed species within the site landscaping as a condition of consent.
Onsite water collection for maintaining the trees and outdoor cleaning would be advantageous.	The opportunity to provide a water tank within the development will be reviewed.
Operational Details	

Matter	Response
Clarification requested regarding the proposed hours of operations for all aspects of the development.	Operating house for the Stage 2 elements of the proposal will be identified in the subsequent detailed DA.
Installation of underground power along Rouse Street is a desirable future project. Will this proposed DA contribute?	This is a significant infrastructure project. The proposal does not include the undergrounding of power along Rouse Street. Public domain improvements will be proposed as part of a separate Section 138 works application.
Assessment / Consultation	
Decisions about the proposal should not be made behind closed doors.	The assessment and determination of the proposal will be undertaken in accordance with the requirement of the Environmental Planning and Assessment Act 1979.
Queries whether Council's involvement in the Henry Parkes Memorial School of Arts Joint Management Committee might present a conflict of interest in objectively processing the DA?	Urbis is unaware of Council's role in the School of Arts management committee. Urbis requests that Council take appropriate steps if any apparent or perceived conflicts interest in relation to the assessment and determination of the DA.
There is not a functioning economic or tourism council department in Tenterfield due to an ongoing staffing crisis so who is responsible for assessing the long-term impact something like this could have on town?	The Applicant has fulfilled the Council's requirements for material to be submitted with the DA. The assessment of the DA is a matter for the Council to consider.
The notice period was not long enough for the scale of the development.	The DA was publicly notified for 14 days are required under the Environmental Planning and Assessment Act Regulation 2000.
Public Benefits	
Employment opportunities	The first stage of the proposal is expected to provide 15 operational jobs. The construction of the proposal will also generate employment opportunities.
Better leisure opportunities for our young people in and around Tenterfield	Noted and agreed.
Medical centre could provide an opportunity to bring in specialist services not currently available at our local hospital.	Noted and agreed.

Matter	Response
New recreation and leisure hub in our community	Noted and agreed.
Increased choice of dining and entertainment outlets.	Noted and agreed.

CONCLUSION

We trust that the above information will enable Council to continue with the assessment of DA2021/132. Please do not hesitate to contact me should you have any questions or require any further information.

Yours sincerely,

Rosie Sutcliffe
Senior Consultant
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rsutcliffe@urbis.com.au

From: Martin O"Shea
To: Tamai Davidson; Rosie Sutcliffe
Cc: chris hsu; Peter Mills
Subject: Updated Traffic and Car Parking Assessment - 148 Rouse Street, Tenterfield [30348]
Date: Thursday, 10 February 2022 10:14:29 AM
Attachments: image001.png
image002.png
image004.png
image005.png
image007.png
G30348R-02 A.pdf

Good Morning Tamai,

Thank you for recently meeting with us in relation to this project. Please find attached updated assessment that includes additional details in the traffic impact assessment in response to the TfNSW commentary.

In regards to the Council comments we note the following (our comments in Blue).

- *Parking calculations are all reduced to minimum therefore assuming the traffic will regularly operate with high congestion.*
  - Parking rates within the report are based on Council DCP or those specified within the RTA guidelines.
  - An allowance for the variation between the peak demands for the different uses has been included within the empirical assessment.
  - The empirical assessment demonstrates that with the variation in demands all car parking demands will be adequately accommodate on-site.
- *Parking calculation for the Medical Centre is incorrect and reduced by 20 %.*
  - Error within the report has been corrected and demands and impacts corrected throughout the assessment.
- *The response from Transport NSW of 17 Nov is noted and supported in full.*
  - See comments below.

In regards to the TfNSW comments we note the following (our comments in Blue).

***TfNSW recommend** the TIA be further developed to confirm and support these statements, including but not limited to the below addressed items.*

Car Parking Spaces:
1. TfNSW notes that the assessment undertaken for the car parking, states 74 spaces are required based on a variety of parking rates listed in Section 4 of the TIA, in particular, Table 4.

TfNSW note the values provided appear to round down the required numbers rather than up. When assessing these values against the proposed parking provision of the development it is further noted that the shortfall of parking spaces provided, may be greater than demonstrated.

2. Notwithstanding the above, TfNSW note, the calculations provided for the Cinema are taken from the Tenterfield DCP. Section 4 of the TIA, proposes that the area of the Cinema covers a number of ancillary uses and therefore a calculation based on the number of seats would be the most accurate to determine the parking requirements. TfNSW note that there are two different floor area measurements demonstrated for the cinema and this statement appears to be relevant only to the larger of the areas listed below:

o1200msq is shown in the Plans for the greater cinema building's floor area which appears to include the administrative office, toilet facilities, entry foyer, mechanical plant rooms and an additional Café / Bar; and

o745msq is listed in Section 4.1 and Tables 1 and 4 of the TIA. This would appear to be for the cinema rooms only when compared to the Cinema building's floor area.

TfNSW notes, based on the DCP requirements of "1 space per 10 seats or 1 space per 15m² of main assembly area, whichever is the greater" and the number of seats (278 seats), it is noted that 28 car parking spaces would be required, however based on area (745msq), 50 car parking spaces would be required. The area-based calculation appears to provide the greater value.

3. Furthermore, TfNSW notes that the Café / Bar located at the front of the Cinema building has not been considered in the any of the car parking or traffic generation assessments. The layout and design of the Café / Bar indicates the ability for that venue to generate it's own traffic demands, including car parking requirements, separate to the cinema's needs and should be considered accordingly. It is unclear if the uses would be managed as a single operation or as individual tenancies. The café listed in Table 4 and throughout the TIA matches up to the size of the café associated with the Bowling Alley, not the cinema.

***TfNSW recommend** Council may wish to seek clarification from the applicant regarding the size of the separate uses within the cinema building and should be satisfied that the appropriate calculations have been undertaken for the car parking requirements of each proposed use for the entire concept development, prior to any consideration to decrease the parking requirements of the development. Prior to any determination, Council should further consider any parking overflows the project may generate during peak periods, in conjunction with any existing parking restrictions and seek the advice of the Local Traffic Committee (LTC) to understand the true impacts of the parking requirements on the surrounding road network.*

- Parking rates within the report are based on Council DCP or those specified within the RTA guidelines.
- An allowance for the variation between the peak demands for the different uses has been included within the empirical assessment.
- The empirical assessment demonstrates that with the variation in demands all car parking demands will be adequately accommodate on-site.
- An additional 16 on-street car spaces will be available along the site's combined frontages to Miles Street and Rouse Street. These car parking areas currently experience low demands and will be readily available for overflow car parking in the unlikely event it is required.

Traffic Assessment
***4.** TfNSW notes, Section 4.4 of the TIA happens to also be referred to as a Traffic Impact Assessment. This section contains several components which generally inform an assessment; however, it does not directly address or assess the impacts of the proposed traffic increase on the road network.*

***5.** Notwithstanding this, TfNSW notes, Sub-Section 4.4.2 addresses the need for a Construction Traffic Management Plan (CTMP) to manage the impacts of traffic servicing the construction activities but does not include an assessment of the key ongoing operational activities and impacts of the development upon the road network.*

- An assessment of the adequacy of the loading/service vehicle requirements is included within the report. Loading and service vehicles are expected to be low and no greater than other commercial uses within the town centre. This activity would not have any impact on the operation of the road network.

Traffic Generation Rates
6. TfNSW notes, Section 4.4 addresses traffic generation for the development and the proposed distribution of that traffic. Further information, explanation and justification is required for the adopted trip generation rates, proposed traffic volumes and distribution routes used in the TIA.

Table 6 provides a breakdown of the proposed traffic volumes generated by the mixed-use development. This table is informed by a number of assumptions underlying the data which is based on empirical rates and rates extracted from unidentified surveys. These surveys have not been provided for review and are not explained or justified in the TIA to demonstrate evidence for the data collection methodology, dates or locations of traffic surveys informing the assessment. Where the TIA proposes to continue using these references, they should be provided as an attachment to any updated TIA.

- Case study data can be provided on request.

Distribution of Traffic
7. The proposed traffic generated by the development should inform the baseline for the proposed traffic distribution assessment, however it is unclear how the data in Table 6 aligns with the distribution of traffic as proposed further in Section 4.4.

The TIA suggests the distribution of traffic for the development will be 60% to the North and 40% to the South and further appears to indicate all traffic will travel via the Manners Street / Rouse Street intersection. TfNSW notes, that vehicles proposed to travel to the south are highly likely to travel via the Miles Street / Rouse Street intersection, rather than Manners Street, however, this route does not appear to have been assessed.

8. It is unclear how or why the distribution of traffic has presented per hour and over two separate time periods for the Manners Street / Rouse Street intersection.

- This was a typo within the report. The distribution of traffic has been further considered and a detailed figure that identifies the adopted distribution of traffic impacts and impacts on individual movements is provided within the report..

Background Traffic Data / Road Network Assessment / Intersection Assessment:
9. TfNSW notes Section 3.2 – Transport Network addresses the three roads fronting the subject site only and primarily consists of photos and of a summary table (Table 3) describing the classifications, road authorities, and lane / parking arrangements of the three roads.

The TIA does not appear to assess of the wider road network impacted by the proposed distribution of traffic generated by the development. In particular there appears to be no assessment of the existing conditions of the road environment, including any reviews of existing turn treatments, pedestrian or safety facilities, delineation, signage, pavement condition or general observations regarding the operational success or failings of the relevant roads and key intersections.

- Consideration of the traffic impacts and consideration of the existing traffic conditions has now been incorporated into the report. This includes an assessment for the warrants for turn lane treatments.

10. Further to the above, the TIA has not provided any background traffic volumes for the surrounding road network. This information is essential to identifying the existing traffic conditions of the relevant roads and key intersections.

Background traffic volumes also inform on the existing AM and PM peak hours for existing traffic movements along the road networks and are used in addition to the proposed traffic volumes and trip distributions to inform background traffic 10 year forecasts and Austroads Turn Warrants Assessments and SIDRA intersection analysis (where applicable) for the key intersections.

- An assessment was completed based on the anticipated traffic conditions under current conditions. WE note that under a 10 year scenario traffic conditions on Rouse Street

may be significantly reduced allowing for the proposed Tenterfield Bypass project.

TfNSW recommend *Council be satisfied that the development application has sufficiently addressed the impacts on the road network of the traffic generated by the individual tenancies / uses and the cumulative impacts of the whole development.*
Council may wish to consider requesting the applicant undertake further sensitivity analysis of the surrounding road network and the proposed traffic generated by the development to determine whether the road network can accommodate the development. It is recommended this information should be presented as a Network Diagram, Road Safety Assessment and Austroads Turn Warrants Assessment, SIDRA intersection analysis (where
applicable) in addition to supplementing any updates and additional information identified to be missing from the existing TIA.

Pedestrian Access and Safety:
11. The development proposes a central pedestrian spine to provide direct access between the rear of the subject site, the proposed mixed-use developments, the adjacent existing shopping centre and the classified road. TfNSW notes this access facility, and the mixed-use developments are all likely to attract pedestrians to the site.

12. The development does not appear to have addressed active and public transport users visiting the development. It is unclear where existing active and public transport facilities may be located in relation to the subject site or how those road users will access the subject site from those unidentified locations.

- There is limited public transport within the township. Not expected that customers or staff would use PT when accessing the site.
- We are satisfied that suitable pedestrian crossing opportunities are available under the existing conditions. Given the ample car parking provided on-site the majority of customers and staff would park within the on-site areas or on-street along the site's frontage.

13. Furthermore, TfNSW notes, Rouse Street is an approved travel route for heavy vehicles and there is potential for heavy vehicles to be passing the site on a regular basis. There does not appear to be any pedestrian crossing or similar safety facility within the road environment adjacent to the subject location. Any pedestrians wishing to safely cross Rouse Street are required use a crossing at the opposite end of the block, near the Manners Street intersection.

- There is a pedestrian crossing (pram ramps) at the interaction that enable pedestrian crossing. The traffic and pedestrian volumes would not trigger any warrants for the creation of an additional formalised pedestrian crossing in this location under the relevant guidelines.

14. The development does not appear to assess the needs of pedestrians or propose any mitigation measures other than formalising footpaths and kerb / gutter along the Crown and Miles Street frontages. It is unclear whether this also includes consolidating the number of pedestrian ramps or crossovers currently located near the Miles Street / Rouse Street intersection.
TfNSW recommend *Council consider whether further assessment is required to address the safety of pedestrians accessing the site from the classified road and the surrounding road network. The Road Network assessment in the TIA could be further expanded to include a Road Safety Assessment of the surrounding road network and include any mitigation measures to address any safety concerns identified.*

- The road safety review is not warranted given the low pedestrian movements.

Works within the classified road reserve / Section 138 application:
15. Section 5(e) of the TIA, states that no infrastructure improvements are needed to accommodate the traffic impacts (of the development).

16. The application does proposes works within the road reserve of the classified road. These works consist of landscaping, formalising of footpaths / kerb / gutter (refer to TfNSW Dot Point #14 above) and an overhanging awning, all of which are understood to be located from the lane edge-line / parking lane back to the property boundary.

17. It is further understood that no works are proposed within the travel lanes of the classified road, at this time, however TfNSW notes that (as per TfNSW Dot Points #9 and #10) assessments have not been carried out on the key intersections of Manners Street / Rouse Street and Miles Street / Rouse Street to understand whether any turn treatments or improvement works are required.

TfNSW recommend *Council be satisfied that all the above matters concerning the classified road and key intersections have been suitably addressed, to support the statement made in Section 5(e).*
TfNSW recommends, where the works in the classified road reserve remain limited to those currently identified in the TIA, prior to any Construction Certificate, Council obtain Strategic (2D) design drawings for all proposed works, structures and roadworks, that would be required as conditions of development consent. Council may be required to seek concurrence from TfNSW for these works under Section 138 of the Roads Act 1993.

Where additional works are identified to be required and conditioned within the classified road pavement, the works will be subject to obtaining TfNSW consent under the Roads Act 1993 and these works must be discussed with TfNSW prior to determination of the development application.
Any works, structures or roadworks on classified (State) road/s are to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and TfNSW Supplements.
Where TfNSW Consent is required, the Developer may be required to enter into a Works Authorisation Deed (WAD) or other suitable agreement as required by TfNSW prior to any road works on the classified (State) road. The developer will be responsible for all costs associated with the roadwork and administration for the WAD. It is recommended that developers familiarise themselves with the requirements of the WAD process. Further information can be obtained from the TfNSW website.

- A detailed traffic engineering assessment has been included in the traffic engineering assessment, including an assessment against the warrants of Austroads. Based on this assessment we remain of the opinion that upgrades to the intersection between Miles Street and Rouse Street are not required as a result of the proposed development.

Please let me know if any further queries that require clarification from Council's perspective.

Martin O'Shea
Senior Associate

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traffixgroup.com.au Melbourne Victoria 3000

From: Tamai Davidson <t.davidson@tenterfield.nsw.gov.au>
Sent: Monday, 2 August 2021 2:11 PM
To: Martin O'Shea <martin@traffixgroup.com.au>
Subject: RE: Prelim Traffic and Car Parking Inquiry - 148 Rouse Street, Tenterfield

Hi Martin,
Gladly we have been quite sheltered here!
I have forwarded your request through to Council's Manager Asset & Program Planning, David Counsell, who will be in touch.

Kind regards,

Tamai Davidson
Manager Planning & Development Services
Tenterfield Shire Council
PO Box 214, Tenterfield NSW 2372

Phone: 02 6736 6000
Direct Phone: 02 6736 6015
Mobile: 0408 939 588
Fax:
Email: t.davidson@tenterfield.nsw.gov.au
Website: www.tenterfield.nsw.gov.au

COVID 19 statement:

Council has implemented strict protocols to ensure we comply with directions issued by government in relation to managing the COVID 19 risk.
These protocols apply to our staff, our customers and visitors to our premises, and councillors alike.
Please be understanding that we will do our best to maintain services and help in what are unique and challenging circumstances..

From: Martin O'Shea <martin@traffixgroup.com.au>
Sent: Monday, 2 August 2021 11:33 AM
To: Tamai Davidson <t.davidson@tenterfield.nsw.gov.au>
Subject: Prelim Traffic and Car Parking Inquiry - 148 Rouse Street, Tenterfield

Good Morning Tamai,

I hope you are keeping well taking into considerations the current Covid situation in NSW. I have been provided you details as a point of contact for preliminary inquiries associated with a new planning application in Tenterfield.

Traffix Group have been engaged to prepare a traffic engineering assessment in association with a future development application at the site at 148 Rouse Street, Tenterfield (aerial photograph provided below). As you can imagine Covid-19 conditions we are not in a position to undertake any site investigations associated with recording existing traffic and car parking conditions surrounding the site. To provide some idea of any existing traffic and car parking data or specific concerns that Council may have for the town centre and the immediate area surrounding the site I was hoping on obtaining contact of Council Traffic Engineer or other relevant officer within Council.

In addition to the above, I am area of the Tenterfield Shire Council *DEVELOPMENT CONTROL PLAN 2014,* we would also take some guidance from the RTA guidelines when determining the car parkin requirements and traffic impacts of the propsoed development. Is there any other traffic engineering guidelines that will need to be addressed as part of any planning application.

Thanks in advance.

Regards,

Martin O'Shea
Senior Associate

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Detailed Site Investigation

Lots A DP 150057, B 150057, 1 DP 516621, 33 DP 1138201

148 Rouse Street, Tenterfield, NSW, 2372

Tenterfield Shire Council

21299_ROUSE_STREET_TENTERFIELD_DSI

Prepared for Jack Thomas, Nutrien Harcourts

October 2021

Document control

Project Title:	**Rouse Street Tenterfield DSI**
Job Number	21299
Document Title	Rouse Street, Tenterfield Detailed Site Investigation Report
Document number	21299_ROUSE_STREET_TENTERFIELD_DSI
Prepared for	Jack Thomas, Nutrien Harcourts
Prepared by	Ecoteam
Site Assessor and Report Authors	Lise Bolton BSci , MEng,

Revision	Date	Description	Report Author/s	Internal Review	Approved for Issue
00	22/10/2021	Issued as Final	Lise Bolton	Keith Bolton	Lise Bolton
Draft	21/10/2021	Issued for Review	Lise Bolton	Nick Crowley	Lise Bolton
Signatures					

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Executive Summary

Ecoteam has been engaged by Jack Thomas, Nutrien Harcourts to undertake a Phase 2 Detailed Site Investigation (DSI) for 148 Rouse Street, Tenterfield. The site is approximately 0.57 ha and currently comprises of a car dealership, mechanic, and panel beaters. The subject site is proposed to be redeveloped to include a childcare centre, medical centre, and commercial shops. This assessment will identify contamination at the site which may affect its future land use. The four lots within the 0.57 ha site were assessed as the Area of Environmental Concern (AEC). This assessment will also form part of the validation of the site during its decommissioning. Soil at the site was screened with Photoionization Detector (PID). Two boreholes were dug to depths of 3.3 m. Selected soil samples were analysed for contaminants of potential concern (CoPC). One surface water sample and two groundwater samples were analysed for contaminants of potential concern (CoPC). The primary CoPCs on site were identified as TRH (C_6-C_{40}), Benzene, Toluene, Ethyl Benzene, Xylene, Naphthalene, (BTEXN), metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), PAH and phenols. Three samples were analysed for Organochlorine Pesticides (OCP) and Organophosphate pesticides (OPP). One sample was analysed for Volatile Organic Compounds (VOC). This document provides information on the contamination assessment process and results. The site assessment and soil sampling were conducted on the 29 and 30 September 2021.

Scope of works – The main objective of this project was to identify the potential type, extent and level of contamination from past land use practises at the site. Additional objectives were to determine contaminant dispersal and effects on human health. The adequacy of information was assessed. A conceptual site model was prepared to understand the potential contamination receptors and pathways. A site investigation and soil, surface water and groundwater sampling were conducted. Soil and water samples were analysed for CoPC. Data from the site investigation and sampling were interpreted to determine recommendations for future use and management of the site.

Summary of Sampling Results – The results of the soil analyses from this investigation were compared with the HILs, HSLs and ESLs in the Schedule B(1) Guideline on the Investigation Levels for Soil (NEPC, 2013) and for F3 and F4 hydrocarbons in Friebel and Nadebaum (2011b) using column A ‘residential’ or column D ‘commercial’. Water quality within wells and surface water was compared with Groundwater Investigation Level (GIL) threshold contamination limits. The adopted assessment criteria are based on human health and protection of aquatic ecosystems in Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater (NEPC 2013a). Laboratory results indicated that BTEXN, PAH and phenols was below the limit of reporting (LOR) within all soil samples analysed at the site. No VOCs were detected in the sample taken adjacent to the oil wash down storage and processing area. Under slab/surface samples contained no OCCs or OCPs indicating that pesticides were not used under slabs tested at the site.

Volatile, F1 hydrocarbons (C_{16} – C_{34}) and F2 hydrocarbons (C_{10} – C_{16}) in all soil samples were below the LOR. Sample sites 1-2 (south western carpark), 1-3-0.1 (adjacent to wash down collection sump), 1-6-0.25 (adjacent to wash down drain), 1-6-0.4 (adjacent to wash

down drain), 5-0.12 (adjacent to wash down drain), 1-9 (adjacent to drain/creek), 1-10 (south of panel beaters), 1-11 (below oil storage tank) contained elevated non-volatile hydrocarbons (C_{16} – C_{34}) at a maximum concentration of 940 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 4,500 mg/kg and guideline ESL level of 1,300 mg/kg. Samples sites 1-6-0.25, 1-6-0.4 which are adjacent to the wash down drain contained elevated non-volatile hydrocarbons (C_{34} – C_{40}) at a maximum concentration of 300 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 6,300 mg/kg and guideline ESL level of 5,600 mg/kg.

All metal concentrations in soil across the site were well below the guideline criteria.

Hydrocarbons, phenols and BTEXN were not detectable within groundwater at the site. Groundwater sampled from the drain and GW1 wells were above the GIL values for freshwater and marine ecosystem health for chromium and zinc, but below the drinking water guideline level for these metals. Water extracted from the drain/creek was above the freshwater guidelines for copper, but below the drinking water guideline level. All other metals were below GIL values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future residents at the site.

Conclusions and Recommendations – Laboratory results indicated that non-volatile hydrocarbons are present at the site within the workshop, western car park, south of panel beaters and adjacent to the creek, however these levels were well below the adopted guideline values for residential land use including day care centres.

Chromium and zinc, in groundwater at the site were above the GIL for freshwater ecosystem health but below the drinking water guideline level for these metals. Elevated copper above GIL for freshwater ecosystem health but below the drinking water guideline was found within the drain/creek. All other metals were below GIL and drinking water values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future visitors or staff at the site.

No other contaminants were identified at the site. Further soil sampling is required when infrastructure such wash down collection sump, wash down drains and oil storage tank are removed to validate that the site is suitable for its intended use. Sampling is also required below any slabs removed that were not assessed during this investigation.

Table of Contents

1. Introduction

1.1. Project Outline

Ecoteam has been engaged by Jack Thomas, Nutrien Harcourts to undertake a Phase 2 Detailed Site Investigation (DSI) for 148 Rouse Street, Tenterfield. The site is approximately 0.57 ha and currently comprises of a car dealership, mechanic, and panel beaters. The subject site is proposed to be redeveloped to include a childcare centre, medical centre, and commercial shops. This assessment will identify contamination at the site which may affect its future land use. The four lots within the 0.57 ha site were assessed as the Area of Environmental Concern (AEC). This assessment will also form part of the validation of the site during its decommissioning. Soil at the site was screened with Photoionization Detector (PID). Two boreholes were dug to depths of 3.3 m. Selected soil samples were analysed for contaminants of potential concern (CoPC). One surface water sample and two groundwater samples were analysed for contaminants of potential concern (CoPC). The primary CoPCs on site were identified as TRH (C_6-C_{40}), Benzene, Toluene, Ethyl Benzene, Xylene, (BTEXN), metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), PAH and phenols. Three samples were analysed for Organochlorine Pesticides (OCP) and Organophosphate pesticides (OPP). One sample was analysed for Volatile Organic Compounds (VOC). This document provides information on the contamination assessment process and results. The site assessment and soil and sampling were conducted on the 29 and 30 September 2021.

1.2. Site Identification

Table 1 presents site details. Refer to **Appendix A** for site overview and detailed site plan of the Investigation Area. Site location is marked in **Figure 1**.

Table 1. Site details of 148 Rouse Street, Tenterfield.

Feature	Description
Address	148 Rouse Street, Tenterfield, NSW, 2372
Plan Number	Lots A DP 150057, B 150057, 1 DP 516621, 33 DP 1138201.
Local Government Area	Tenterfield Shire Council
Geographic Coordinates	S -29.057071°, E 152.017890°
Investigation Area	Approx. 0.57 ha
Current Zoning	R5 Village
Proposed Development	Day-care centre, medical centre commercial shops (**Appendix B**)

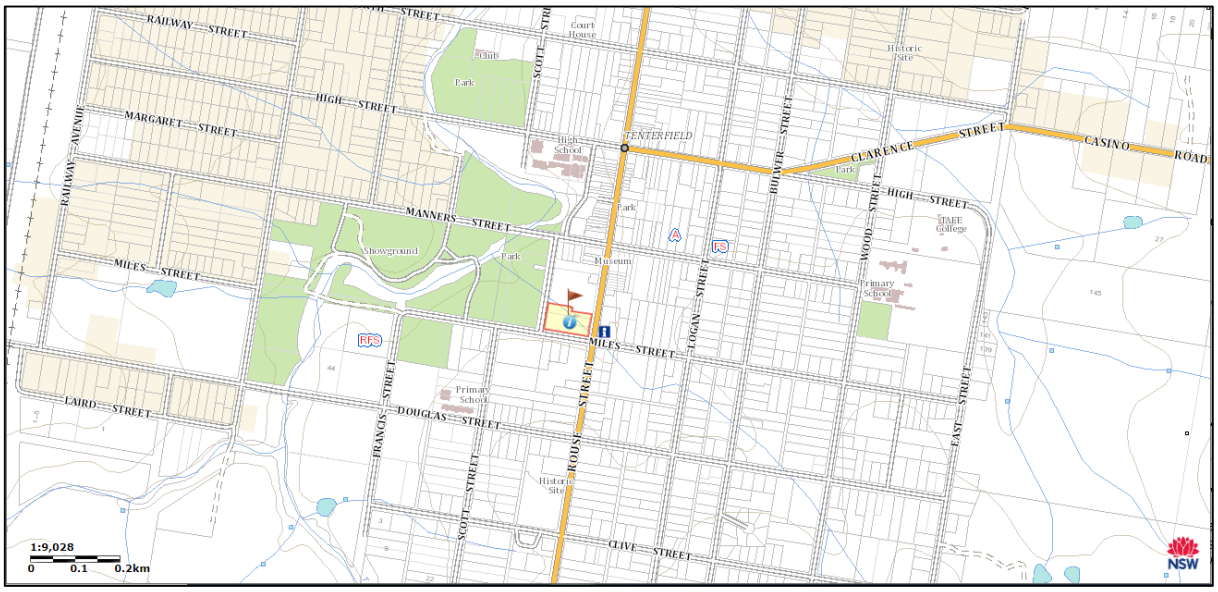


Figure 1. Site location. Site boundaries marked with red flag. Source: Six Maps Online (NSW Spatial Services, NSW Department of finance and Service).

1.3. Scope of Works

The scope of works for this assessment was guided by CLM Act (1997), SEPP 55, OEH (2011), NEPC (2013), AS 4482.1 (2005) and AS 4482.2 (1999). This scope of works included:

1. Undertake a desktop study to review potential past contamination information and identify the Area of Environmental Concern (AEC);
2. Prepare a site plan and site-specific sampling programme to adequately detect the level and extent of contamination on the site;
3. Prepare a Conceptual Site Model (CSM) and assess Data Quality Objectives (DQO);
4. Perform a site assessment of the AEC to extract soil samples, assess site conditions and identify contamination indicators;
5. Collect groundwater samples from two wells and surface water samples from the creek to assess potential ground and surface water contamination;
6. Submit soil and water samples to a NATA-accredited laboratory to measure contaminant concentrations;
7. Achieve quality control objectives;
8. Interpret laboratory results in accordance with NEPC (2013a) guidelines; and
9. Prepare recommendations and final conclusions from interpretation of field soil and water results.

1.4. Objectives

The objectives of this assessment are to:

1. Identify the extent and level of soil contamination in AEC;
2. Identify potential contamination from site infrastructure;
3. Investigate all potential contamination sources and measure concentrations of contaminants within the soil, groundwater and surface water;
4. Determine the risk posed to human health by identified levels of soil contamination; and
5. Assess the adequacy of information available and determine the need for further investigations.

1.5. Legislative Framework

The following legislative acts and guidelines have been referred to during the investigation and interpretation processes:

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land (DPUA & NSW EPA, 1998).
- Section 105 of the *Contaminated Land Management Act 1997* (CLM Act) (NSW Government, 1997a).
- *Protection of the Environment Operations Act 1997* (POEO Act), (NSW Government, 1997b).
- Australian Standard (AS 4482.1- 2005) Guide to the investigation and sampling of sites with potentially contaminated soil (Part 1).
- Australian Standard (AS 4482.2- 1999) Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile substances.
- Contaminated Sites – Sampling Design Guidelines (NSW EPA, 1995).
- Consultants Reporting on Contaminated Land- Contaminated Land Guidelines. (NSW EPA, 2020).
- National Environmental Protection (Assessment of Site Contamination) Measures 1999 - Amended 2013 (NEPC, 2013);
- Regional Policy for the Management of Contaminated Land (NRRC, 2007)
- Waste Classification Guidelines – Part 1: Classifying Waste (EPA, NSW, 2014)
- Contaminated Sites: Guidelines for NSW Site Auditor Scheme (DECC NSW, 2006).
- Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act 1997* (DECC NSW, 2015).
- Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC/NHMRC, 1992).
- Guidelines for the Assessment of On-site Containment of Contaminated Soil (ANZECC, 1999).
- Guidelines for the Assessment and Clean Up of Cattle Tick Dip Sites for Residential Purposes, NSW Agriculture and CMPS&F Environmental (February 1996).

2. Site Conditions

2.1. Topography, Geology and Hydrology

Table 2 contains a description of the regional topography, geology, soil landscape and hydrogeology.

Table 2. Topography, geology, soil landscape and hydrology.

Feature	Description
Topography (DPIE 2021)	Site elevation: ~851-849 m AHD. Site slope to the south-west. The site contains a flat area within the eastern portion of the site which slope down to the western potion.
Geology (NSW Geo Survey, 1969, DPIE 2021)	Tenterfield mass of Dundee Ademellite Porphyrite (Blue-grey medium to course grained).
Soil Landscape (DPIE 2021)	Lucas Heights-Moderately deep (50–150 cm), hard setting Yellow Podzolic Soils and Yellow Soloths Yellow Earths on outer edges.
Hydrology (NSW LPI, 2001 and commonwealth of Australia, 1987	An open drain is present on the western portion of the site. This drain collets stormwater for the site and surrounding areas. This drains forms as a tributary to Tenterfield Creek and runs through the subject site from the south-eastern corner to the north-western corner. The south-eastern corner runs underground. Tenterfield creek is present approximately 160 m to the north-west. Tenterfield dam is located 1.6 km to the south.
Groundwater (NSW Office of Water 2014, Jacobson & Lau 1987)	Granite fracture rock of low to moderate productivity of the New England Tablelands. Groundwater estimated at approximately 3 m depth.
Acid sulfate soil (DPIE 2021)	Not present

2.2. Register Groundwater Bores and Water Use

Search of the Water NSW register database shows 5 water bores are located within 100 m of the subject site. Two of these bores are registered for stock/domestic use, while three are registered as monitoring wells at the Mobil service station (70 m east of the subject site). A further 7 bores are located within 500 m of the site. **Table 3** presents the detail of bores situated within 200 m of the site. The Tenterfield Village is connected to town water supply, therefore limited domestic groundwater water use is expected in the surrounding area. The site is not close to any local water supply areas.

Table 3. Groundwater wells within 200 m of the subject site.

Well ID	Position from Subject Site	Construction date	Use	SWL	Total depth	Estimated ADH
GW900213	70 m SW	1991	Domestic	1 m	21 m	853 m
GW970501	70 m NE	2010	Monitoring Bore	2.1 m	5.0	851 m
GW970502	70 m NE	2010	Monitoring Bore	3.1 m	4.5 m	851 m
GW970500	85 m NE	2010	Monitoring Bore	3.0 m	5.5	854 m
GW308356	170 m NE	2019	Domestic/stock	6 m	27m	856 m

Two groundwater wells were established at the site in 2012. It is alleged these wells were installed by the EPA to identify a source of contamination within the creek. It is understood that the site was no deemed to be the source of contamination.

2.3. Environmentally Sensitive Sites

The immediate surrounding area is not consider enviromentally sensitive. The park directly west of the subject site is marked as public open space for planning purposes and is mainly grassed withs some mature trees. A creek is situated 160 m south-west which contains mature trees and riparian vegetation. The creek is situated in an urban environemnt and is not likley to be considered a highly sensitve environment. This area shall be considered a potential ecological receptor for assessement purposes

3. Site History

3.1. Land Use

The subject site is situated on the corner of Rouse Street and Miles Street. Rouse Street borders the southern side of the site. The Tenterfield Shopping Centre is neighbouring the northern boundary of the site. Rouse Street is a considered a central commercial /shopping area. The surrounding area consists of commercial land use including a shopping centre, service station, information centre and various commercial shops. Residential dwellings and a church are present directly south of the site across from Miles Street. A designated Public Open Space is present along the western boundary which is grassed with some trees The wider area surrounding the property includes residential, commercial, and public recreation land uses. Surrounding land use is presented in **Table 4**.

Table 4. Surrounding land use.

Orientation	Land Use
North	Village- Commercial
South	Village- Commercial
East	Village- Residential
West	Village- Public recreational area (Open space)

3.2. Current Site Conditions

The site is currently a car dealership yard and mechanical workshop. The workshop includes a welder, hoists, and drill presses. The Sexton and Green portion of the site contains a large office building. A panel beaters workshop is present to the north-west of the subject site. The site consists of a brick building with cement floor and tin roof. The site has two car parking areas (north-east and south-west).

An open external drain/creek runs underneath the site which is exposed within the south-western corner of the site. The drain is a tributary to Tenterfield Creek to the east. The drain holds water at times.

An internal drain is present within the workshop area which collected wash down water. This water is then collected in a wastewater pit which is pumped out by a truck on a regular basis. The oil water separator is no longer being used at the site. A mechanical pit is also present at the site. There is potential for leakage of oil and fuel from these sites (**Appendix A**). The property contains concrete, bitumen, grassed and exposed soil surfaces. The south-western carpark area is the only fenced potion of the site. The site contains a flat surface

within the eastern potion which drops down to the west. The site has some cars remaining in parking areas.

Contaminating Infrastructure has been identified on the site map in **Appendix A**.

Infrastructure identified (past and present) within the site:

- Mechanic Pit (4.3m x 1.2 m - 1.8 m deep);
- 4 x Former mechanical pits, capped (2 m x 0.9 m- Unknown depth);
- Internal wash down drains;
- 2 x Wash down collection pit (0.85 m x 0.85 m – 0.15 and 0.3 m deep);
- Wash down collection sump (1.5 m x 1.5 m x 2m depth (estimated);
- Oil separator; and
- Car parking areas.

3.3. Services and Underground Utilities

Mains sewage in present running from the north to south, though the northern carpark to the Sexton and Green workshop area (**Appendix C**). A Dial Before You Dig (DBYD) assessment of the site has identified Telstra cables (including NBN infrastructure) are present along the eastern and southern boundaries of the site within the footpath area. Power poles are also located along the eastern, southern, and western boundaries of the site. Further intrusive investigation at the site will require a competent underground service locator to clear the underground infrastructure before undertaking soil sampling and assessment.

3.4. Site Walkover

A Site walkover was conducted on 29 and 30 September 2021. Site photographs are presented in **Appendix D**. The external concrete and bitumen surfaces were in very good condition.

All buildings are also in good condition. The Sexton and Green workshop area is currently in good condition and has been kept tidy and clean with very limited oil stains present on the concrete surface. The surface has been laid over an older surface which is estimated to have occurred in 1992. The wash down drain is of new condition. Most of the workshop above ground infrastructure (hoist etc) had been removed prior to the site walk over. The offices and showroom were in a clean and tidy condition. An oil storge tank was positioned on the northern side of the workshop and contained within a bunded area.

The panel beater shop was in good condition. The concrete floor was in good condition and did not have any signs of cracks. No pits, drains or underground structures were present

within the panel beaters building. All above ground structure had been removed prior to the site walkover.

An external open drain/creek is present running under the site from the south-eastern corner to the north-western corner. This drain runs underground below the Sexton and Green building site and is approximately 3.7 m wide beneath the building. The open portion of the drain had some vegetation and contained standing water. There is grass present surrounding the drain. The drain runs under the road to the west. A bitumen driveway leads into the panel beaters site. The site contains mostly fill and is built up 1 m to the east and approximately 1-2 m to the southwest.

3.5. Site History

The Rouse Street area in Tenterfield was expanded from 1900-1950. The subject site was established as the Sexton and Green garage and car showroom in 1923. The Sexton and Green dealership is one of oldest car dealerships in Tenterfield. The Sexton and Green dealership occupied Lot A and B, DP 150057 from 1923. The other lots were owned by a butcher until 1973 when it was taken over by the Sexton and Green Car dealership.

The current Sexton and Green building was built in the early 1960s and was constructed of brick, with a cement floor and tin roof. A part of the building was constructed with tin. This building was then upgraded in 1975. The front veneer was upgraded and repainted in 1992.

The western panel beater was built in 1975 after the land was acquired from the butchers. This building was also renovated in 1992. The site has historically been used as a panel beaters workshop. Aerial photographs reviewed from 1967 to present (**Appendix E**), have shown the main Sexton and Green Building was present prior to 1967. The site and its surroundings are designated as a heritage conservation area. Historical searches are presented in **Appendix F**.

3.6. Review of Aerial Photographs

Aerial photographs from 1967 to 2021 were reviewed and summarised to investigate previous land use within the subject site and the surrounding vicinity. **Table 5** contains a summary review of historic aerial photographs for the subject property and surrounding land. (See **Appendix E** for historical images).

Table 5. Summary of historic aerial photographs.

Date Source	Site
28/05/1967 NSW Historical Imagery	The photograph is black and white and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Some car parking is visible to the west. The area directly to the west of the Sexton and Green building is undeveloped. The north-western portion of the site is partially vegetated. The drain/creek is present flowing to the north-west. A mall building is present to the north of the Sexton and Green Buidling. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north.
3/04/1975 NSW Historical Imagery	The photograph is black and white and of poor quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Some car parking is visible to the west. The area directly to the west of the Sexton and Green building is undeveloped. The north-western portion of the site is partially vegetated. The drain is present flowing to the north-west. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north. The site is largely unchanged from the previous Historical Image
1/08/1985 NSW Historical Imagery	The photograph is black and white and of poor quality **The site** The Sexton and Green Building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Car parking is still visible to the west. A shed/building has been erected within the western portion of the site. The north-western portion of the still contains some vegetation. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north.
1993 Google Earth Image	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Cars are visible parked in this area. Car parking is visible to the west, taking up a small portion of this area. The western carpark is fenced. A shed/building is present within the western portion of the site The north-western portion of the site contains some vegetation and grass surfaces. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly to the north, east and south of the site. Industrial/commercial premises are present further to the north. Some commercial land uses are visible across Rouse Street to the south.
2010 Google Earth Image	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Many cars are visible parked in this area. Car parking is visible to the west, this carpark has expanded further west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site has been cleared. **Surrounding Land** The site directly to the west is cleared and grassed. Some vegetation has been removed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east. The areas north and northeast have expanded to include more commercial land uses. More commercial land use is viable further south.

Date Source	Site
2013 Google Earth	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Many cars are visible parked in this area. Car parking is visible to the west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site is cleared. **Surrounding Land** The site directly to the west is cleared and grassed. Some vegetation has been removed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east and further south.
2021 Google Earth	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Some cars are visible parked in this area. Car parking is visible to the west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site is cleared. **Surrounding Land** The site directly to the west is cleared and grassed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east and further south. The site is largely unchanged from the previous Historical Image

3.7. Contamination History

An assessment was conducted by the EPA on groundwater at the site in 2012. This assessment was carried out due to potential contamination within the creek. The site was not deemed responsible for the contamination. A Search of NSW Contaminated Lands Records shows only one site is present within the Tenterfield Shire (Former Arsenic Factory Duke and Manor Street, Tenterfield). The site is not listed on the NSW EPA List of notified Sites. The United Tenterfield Service Station (94 Rouse Street) is a listed site, which is currently under investigation.

3.8. Previous Titles

A prior Title search was conducted via the NSW Land & Property information website for the subject property (**Table 6**). The Historical Titles and owners are presented in **Appendix F**. Historical land parish maps show the site as 1 lot in the early 1900s owned by J Witten. The subject property was shown to be subdivided within the 1958 historical maps.

Table 6. Title search details.

	Current title (2021)	Previous titles
Date	1/516621	12915-227
Lot and DP	1/1113227	1/350046, 4/22/758959
	32/1138201	2/851417, 3/587603
	A/150057	12350-237
	B/150057	4599-26

4. Assessment Criteria

The key assessment criteria adopted in the assessment of contamination is the National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Schedule B1 provides contaminant exposure levels which can be used to assess risk of contamination to human and ecological receptors. Health Investigation Levels (HILs), Health Screening levels (HSLs), Ecological Screening Levels (ESLs) and Ecological Investigation Levels (EILs) may be adopted from the measure to determine the likely human and ecological health impacts of soil contamination and any further investigation required. Management limits are also adopted for petroleum hydrocarbons. Water quality within groundwater is compared with Groundwater Investigation Level (GIL) threshold contamination limits.

HILs provide assessment criteria for indicators of risk for direct contact and therefore are important for determining immediate risk. HSLs are applicable to assessing human health risk through inhalation, ingestion or direct contact pathways and are site dependent. EILs and ESLs assess the direct risk to terrestrial ecosystems and are only applicable to the top 2 m of soil. This assessment criteria will be used as a reference to indicate the potential for soil contamination. Management limits identify the need for further investigation but do not imply contamination risk.

GILs are based on marine and freshwater groundwater quality assessment criteria which are adapted from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC/ARMCANZ 2000 (ANZECC 2000). This guideline outlines water quality objectives for the protection of aquatic ecosystems. These values do not imply an environmental problem but are intended as trigger values in which further assessment may be required. GILs for drinking water assessment criteria are adapted from the Australian Drinking Water Guidelines (ADWG, NHMRC 2011). Drinking water criteria are provided as a reference only.

4.1. Contaminants of Potential Concern (CoPC)

Current land-use indicates there may be potential for contamination within the subject site. Contamination is possible from leakage of oil and fuel from the mechanic workshop associated infrastructure. Leakages of fuel and oil from cars housed on the site or metals and chemicals from other site uses (panel beating) may also be present. Importation of contaminated fill may also have occurred at the site. Soil will be tested for contaminants of potential concern (CoPC) from car storage and mechanics which include:

- Total recoverable hydrocarbons (TRH) (C6 to C40)
- Benzene, toluene, ethylbenzene and xylenes (BTEX)
- Naphthalene
- Metals
- VOCs
- PAH

Secondary contaminants that may be associated with other activities carried out on workshop areas sites include:

- Polycyclic aromatic hydrocarbons (PAH) from oil and fuel and workshop activities.
- Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn), phenols from workshop activities.
- BTEX compound from paints and workshop chemicals.
- VOCs from oil and fuels.
- Organochlorine pesticides (OCP) and heavy metals used under slabs.
- Heavy metals and TRH associated with imported fill material.

The service station across the road may also be an off-site source of contamination.

4.2. Adopted Assessment Criteria

The adopted assessment concentrations in soil for the CoPC identified in **Section 4.1** are summarised in **Table 7** for groundwater and **Tables 8 and 9** for soil. These tables were used to assess the risk to human health and the environment due to soil contamination at the site.

Table 7. Adopted assessment criteria of CoPC for groundwater.

Contaminant	Freshwater (mg/L)*	Marine Waters (mg/L)*	Drinking Water (mg/L)**
TRH (C_{10} to C_{36})	***	***	
Benzene	0.95	0.7	0.001
Toluene	0.18	0.18	0.8
Ethylbenzene			0.3
Xylene	0.35 (as o-xylene) 0.20 (as p-xylene)		0.6
Naphthalene	0.016	0.05	
Benzo(a)pyrene	0.0002	0.0002	0.00001
Arsenic	0.024		0.01
Cadmium	0.0002	0.0007	0.002
Chromium	0.001	0.0044	0.05
Copper	0.0014	0.0013	1
Lead	0.0034	0.0044	0.01
Mercury			0.001
Nickel	0.011	0.007	0.02
Zinc	0.008	0.015	3
Phenol			

Notes

- *Space denotes information not available.*
- **Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC /ARMCANZ, 2000), 95% Protection Level for Fresh and Marine Water.*
- ***Australian Drinking Water Guidelines (National Health and Medical Research Council, Agricultural and Resources Management Council of Australia and New Zealand) 2011.*
- ****No criteria are available for TPH C_{10}-C_{36}.*

Table 8. Exposure limit assessment criteria using 'Residential A'

Contaminant	HIL (mg/kg)	HSL-Sand (mg/kg)			HSL-Silt (mg/kg)			HSL-Clay (mg/kg)			ESL (mg/kg
Depth	N/A	0-1 m	1-2 m	2-4 m	0-1 m	1-2 m	2-3 m	0-1 m	1-2 m	2-3 m	0-1m
TRH F1 (C_6 to C_{10})		45	70	110	40	65	100	50	90	150	180
TRH F2 (C_{10} to C_{16})		110	240	440	230			280			120
TRH F3 (C_{16} to C_{34})		4500						4,800			1300
TRH F4 (C_{34} to C_{40})		6300						8,100			5600
Benzene		0.5	0.5	0.5	0.6	0.7	1	0.7	1	2	95
Toluene		160	220	310	390			480			135
Ethylbenzene		55									185
Xylene		40	60	95	95	210		110	310		95
Naphthalene		3			4			5			170
Arsenic	100										100
Cadmium	20										
Chromium	100										330
Copper	6000										140
Lead	300										1100
Mercury	40										
Nickel	400										60
Zinc	7400										390
PAH – BaP TEQ	3										0.7
Total PAH	300										
Phenol	3000										
DDT+DDE+DDD	240										180
Aldrin and dieldrin	6										
Chlordane	50										
Endosulfan	270										
Endrin	10										
Heptachlor	6										
HCB	10										
Methoxychlor	300										
Toxaphene	20										
Chlorpyrifos	160										

Notes

- *Space denote information not available.*
- *HILs, HSLs and ESLs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Tables 1A(1), 1(A)3, 1(B)3, 1(B)4, 1(B)6*
- *HSL for TRH F3 and F4 are presented in Friebel and Nadebaum (2011b) Table B4 and are based on direct contact.*

Table 9. Exposure limit assessment criteria using 'Commercial C'

Contaminant	HIL (mg/kg)	HSL-Sand (mg/kg)			HSL-Silt (mg/kg)			HSL-Clay (mg/kg)			ESL (mg/kg)
Depth	**N/A**	**0-1 m**	**1-2 m**	**2-4 m**	**0-1 m**	**1-2 m**	**2-3 m**	**0-1 m**	**1-2 m**	**2-3 m**	**0-1m**
TRH F1 (C_6 to C_{10})		260	370	630	250	360	590	310	480		215
TRH F2 (C_{10} to C_{16})											170
TRH F3 (C_{16} to C_{34})		27,000			27,000			27,000			2,500
TRH F4 (C_{34} to C_{40})		28,000			28,000			28,000			6,600
Benzene		3	3	3	4	4	6	4	6	9	75
Toluene											135
Ethylbenzene											165
Xylene		230									180
Naphthalene											370
Arsenic	3000										160
Cadmium	900										
Chromium	3600										540
Copper	240 000										200
Lead	1500										1800
Mercury	730										
Nickel	6000										95
Zinc	400 000										540
PAH – BaP TEQ	40										0.7
Total PAH	4000										
Phenol	240 000										
DDT+DDE+DDD	3600										640
Aldrin and dieldrin	45										
Chlordane	530										
Endosulfan	2000										
Endrin	100										
Heptachlor	50										
HCB	80										
Methoxychlor	2500										
Toxaphene	160										
Chlorpyrifos	2000										

Notes

- *Space denote information not available.*
- *HILs, HSLs and ESLs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Tables 1A(1), 1(A)3, 1(B)3, 1(B)4, 1(B)6*
- *HSL for TRH F3 and F4 are presented in Friebel and Nadebaum (2011b) Table B4 and are based on direct contact.*

5. Conceptual Site Model

A preliminary Conceptual Site Model (CSM) identified pathways and receptors of CoPC within the Areas of Environmental Concern (AEC). AEC are defined as any area in which past potentially contaminating activities may have been conducted.

Table 10 shows information on AEC and CoPCs which were tested at the site. **Table 11** presents contamination sources, AEC, activity of concern and CoPC characterisation.

Table 10. AEC, activities of concern and CoPC.

I.D	AEC	Activity of concern	CoPC	Comments
Mechanic Workshop	Oil and fuel collection and disposal Workshop and area of washdown	Oil and fuel storage and dispensing Wash down of fuel oil and chemicals in workshop, oil collection and treatment	TRH, BTEXN, metals, PAH, VOCs phenols	Contaminant of oil, diesel and leaded fuel and oils. Volatile substances may also be present in soil near pits and collection areas.
Workshops/ panel beaters	Workshop and panel beaters building	Paint and chemical use. Oils and fuels storage and dispensing.	TRH, BTEXN, metals, PAH, phenols	Paint, metals form chemical use and phenolic compounds may be present surrounding the building.
Concrete areas	All concreted or bitumen surfaces	Chemical treatment and metals for pesticide treatment	TRH, BTEXN, metals, OCP, OPP	Contaminant of metals and pesticides may be present in the top surface of the soil directly under the slab.
Drain	Drainage from commercial areas	Stormwater and shallow groundwater runoff from the site and surrounding commercial areas	TRH, BTEXN, metals, PFAS	PFAS may be present within drainage lines. Stormwater and shallow groundwater may have commination from leaking pits or site activities.

Table 11. Potential contamination sources and transport mechanisms.

AEC	Primary Sources	Secondary Sources	Transport mechanisms
Mechanic Workshop	-Leaking pits and oil storage tank or wash down collection sump (>2m) -Leaking drain (0-0.3m) -Fill material -Surface spills	Impacted surface soil (0-0.3m) Impacted sub-surface soil (0.3m+) NAPL plume migration in groundwater Impacted stormwater	Volatilisation and atmospheric dispersion of dusts and vapours. Soil and contaminant particle movement . Mobile free phase hydrocarbon or chemical migration. Flood/storm migration Groundwater migration.
Workshop/ panel beaters	-Chemical and paint use on-site (0-0.15m) --Fill material -Surface spills	Impacted surface soil (0-0.3m) Impacted sub-surface soil (0.1m+) Chemical migration in groundwater	Volatilisation and atmospheric dispersion of dusts and vapours. Soil and contaminant particle movement. Mobile free phase hydrocarbon or chemical migration. Groundwater migration.
Car parking Area	-Chemical application during laying of the concrete. Oil, fuel, and chemical spills. (0-0.3m)	Impacted surface soil (0-0.3m)	Soil dispersion during removal of the slab.
Drain/creek	-Contaminants from stormwater (0-0.3m), Water contamination	Impacted surface soil (0-0.3m). Impacted surface water	Flood/storm migration. Groundwater migration.

5.1. Receptors and Pathways

The area of investigation is a car dealership, mechanic and panel beaters which will be developed into a day-care centre, medical centre, and commercial shops. Based on the level of soil contact within the AEC, the childcare centre site will be assessed as land use scenario 'A' low-density residential' for contaminant exposure risk assessment. This includes outdoor exposure. The remainder of the site will be assessed as land use scenario D "Commercial". This land use provides contaminant levels which assume mostly sealed surfaces.

5.1.1. Sensitive Receptors

Sensitive receptors have been identified within the vicinity of the site:

- Future construction personnel during excavation work;
- Children within the day-care centre;
- Visitors to the medical centre and shopping area;
- Future workers at the site;
- Residential dwellings surrounding the site;
- Ecological receptors towards the west of the site; and
- Visitors to the recreational area west of the site.

5.1.2. Potential Exposure Pathways

Contamination has been identified as being potentially present in soil within the AEC due to past activities. The main CoPC have been identified as TRH, BTEXN, PAH, and metals. OCP and OPP may be present under slabs. PFAS may be present within the urban creek area. Exposure pathways of these contaminants in soil include direct contact, inhalation of vapours and ingestion of soil particles through dust or eating of soil. **Table 12** provides a risk assessment of potential exposure pathways for receptors at the site.

Table 12. Receptor and pathway risk assessment.

Source	Pathway		Risk
Contamination from mechanics and workshop	**Human health**	Ingestion of soil and inhalation of dust particles.	**High risk**. Soil particles may be ingested as dust particles. Soil particles may be directly ingested, particularly by young children. Risk is high for the childcare centre with direct access to soil. Inhalation exposure associated with particulates are considered of less significance than direct ingestion of soil.
		Ingestion of contaminated water	**Minor risk.** Tenterfield has a reticulated water mains supply. Based on this it is considered unlikely that a groundwater will present a risk.
		Inhalation/Vapour intrusion	**Minor risk**. Naphthalene and volatile hydrocarbons (C6-C16) may be present. Groundwater may be contaminated if the mechanical washdown collection sump have leaked. Vapour intrusion presents a risk for future staff and visitors. Minor risk due to limited storage of volatile chemicals stored onsite.
		Dermal absorption	**Minor risk**. At most risk to future construction personnel during excavation work. Dermal adsorption of most chemicals potentially present are low.
	Ecological	Surface runoff to waterways. Infiltration to groundwater.	**Moderate risk**. A drainage area and creek exist towards the west of the site. A groundwater plume or migration though the drain/creek on-site may be possible due to the water table and close proximity to drainage lines.
		Direct uptake from ecological receptors	**Minor risk.** An open ecological area exists towards the west of the site. The is limited ecological receptors to the west of the site. Contamination is unlikely to spread to this site.

6. Sampling, Analysis and Quality Plan

A sampling, analysis and quality plan (SAQP) has been developed for the site using the Data Quality Objectives (DQO). DQO are defined using a 7-step planning approach which provides type, quality and quantity of data required to assess the environmental condition of the site. This process defines the project requirements (NEPM 2013, Schedule B2, AS 4482.1 2005).

The 7 steps include:

1. **State the problem**
2. **Identify the decision**
3. **Identify inputs to the decision**
4. **Define boundaries of the study**
5. **Develop a decision rule**
6. **Specify acceptable limits on decision errors**
7. **Optimise the design for obtaining data**

6.1. State the problem

The AEC identified within the site needs to be confirmed as not presenting a risk to human health or the environment. Concentrations of contaminants may be present above naturally occurring levels from past land use practices of the mechanic, workshop, or panel beaters. These contaminants pose a threat to the health of demolition staff, future staff, and visitors. Contaminant levels above the HIL and HSL-A (Residential/childcare) within the proposed childcare development area or HIL and HSL-C (Commercial) within the commercial development area require management or remediation. Evidence is required to confirm each site does not pose an unacceptable risk to human health or the environment and that the site is suitable for its intended use.

6.2. Identify the decision

Soil sampling will be undertaken to confirm the presence or absence of contaminants within the AEC. Soil sampling analysis results are required to be below the HIL and HSL A within the proposed childcare development area or HIL and HSL-C within the commercial development area to confirm the site is suitable for its intended use. GILs will also be assessed. Further analysis or risk will be undertaken. If contamination is identified, then the vertical and horizontal extent may need to be assessed to provide management and/or remediation actions.

6.3. Identify inputs into the decision

Inputs into the decision include:

- The historical/background site information listed in **section 2;**
- Guideline documents listed in **section 1.5**;
- Data collected during field assessments and observations of site conditions;

- Outcomes of QA/QC assessment made in **Section 7**;
- Results from the groundwater and surface water sampling measure against assessment criteria in **Table 7**; and
- Results from the soil sampling measure against assessment criteria in **Tables 8 and 9.**

6.4. Define boundaries of the study

The investigation boundaries will be defined as 148 Rouse Street, Tenterfield, NSW, 2372, Lots A DP 150057, B 150057, 1 DP 516621 and 33 DP 1138201.

The AEC in which soil sampling will be conducted has been identified as a 0.57 ha area containing the car dealership, mechanic and panel beaters infrastructure (**Appendix A**).

Surface and under slab sampling will be used to detect contamination hotspots. Borehole sampling is used to identify contamination from below ground infrastructure.

6.5. Develop a decision rule

Data obtained from laboratory analysis and field assessment will be assessed against the adopted exposure risk assessment criteria (**Tables 7, 8 and 9**). Laboratory data will be accepted if it has passed all QA/QC assessment (**Section 7**).

Decision Rules

- If soil contaminant concentrations are below the adopted assessment criteria, then soil contamination exposure risk is considered acceptable.
- Sites with soil contaminant concentrations exceeding exposure limit assessment criteria will be considered to be contaminated.
- Soil management and remediation will be required to reduce exposure risk where soil contamination is unacceptable.

6.6. Specify acceptable limits on decision errors

Decision error may occur when sampling programs do not adequately detect the variability of a contaminant across the site. Measurement errors occur due to deficient collection and analysis of data.

Two types of decision error are:

- Deciding that soil contamination on the site poses an **acceptable** risk for the intended land use when it does not; and
- Deciding that contamination on the site poses an **unacceptable** risk for the intended land use when it does not.

This assessment aimed to conclude with a 95% probability that analysis of field and soil sampling results in AEC do not present an unacceptable risk and that risk is not assumed unless a 90% probability is applied to that decision.

Soil was assessed with the following points which will quantify tolerable limits on decision errors:

- Comparison of the 95% upper confidence limit of the arithmetic mean concentration (95% UCL values) of each contaminant to the nominated site criterion;
- No individual soil sample result shall have a concentration that exceeds 250% of the criterion;
- A normal distribution will only be applied if the coefficient of variance is not greater than 1.2; and
- The standard deviation of a sample population should not exceed 50% of the nominated criteria.

Limitations to sampling include access for sampling and time on-site. Ecoteam cannot drill within 3 m of live infrastructure and 1 m of tanks/infrastructure. Footings were present at the site which made it difficult to adequately sample all locations. Additional limitations include the ability to locate past underground infrastructure adequately. Further assessment will be required during demolition of the site.

Assessment and analytical methods used in the assessment were based on qualified and experience staff using QA and QC procedures. Sampling QA and QC can be found in **Section 7** of this document. Data quality indicators (DQI) are listed in **Tables 13, 14, 15, and 16**.

6.7. Optimise the design for obtaining data

The data optimisation was achieved by the following guidelines:

- NEPM (2013)
- OEH (2011)
- Clements *et.al* (2009)
- AS 4482.1 (2005)
- AS 2282.2 (1999)

Sample methodology and rationale for validation has been documented in **Section 8**. Judgemental and systematic soil sampling will be undertaken within the AEC. Data will be optimised by using QA and QC procedures. Sampling QA and QC can be found in **Section 7** of this document. DQIs are listed in **Tables 13, 14, 15, and 16**. This includes using NATA accredited laboratories.

7. Investigation QA/QC Evaluation

Tables 13, 14, 15, and 16 present summaries of the field and laboratory investigation QA/QC evaluation and include data quality indicators (DQI) required to be achieved to ensure quality of data.

Table 13. Investigation DQIs

Precision	Precision is measured by the reproducibility of the data under different conditions. The laboratory results and sampling techniques will be assessing the Relative Percent Difference (RPD) of duplicate samples (**Table 15**).
Accuracy	Accuracy assesses any bias in the analysis techniques. The laboratory data compared to the QA/QC presented in **Tables 15 and 16**.
Representativeness	Representativeness ensures that sample data represents the characteristics of the environmental condition. Samples will be collected on a representative bases by collecting and adequate number of samples in each location to characterise the site correctly (**Table 14**).
Comparability	Comparability expresses the confidence of each data set. A consistent technique will be used to collect samples and analyse samples (**Tables 14, 15 and 16**).
Completeness	Completeness defines the percentage of measurements taken which are considered valid. The validation sampling design and collection methods will ensure sufficient data is collected (**Table 14**).
Sensitivity	Sensitivity expressed the appropriateness of the laboratory assessment. The LOR will be compared to the adopted criteria (**Tables 7, 8 and 9).**

Table 14. Investigation Field QA/ QC program.

Criteria	Objective/DQI	References	Evaluation/ comments
Historical evaluation/ desktop study	Determine past and present land use activities that present contamination risk.	Past site diagrams, Aerial photographs, historical topographical maps, communication with owner.	Objective achieved.
Soil Sampling Design	Soil sampling protocol for site validation will detect contamination within the AEC. The target contaminants are TRH, BTEXN and lead. Judgmental sampling in AEC.	NSW EPA (1995) NEPC (2013b) Schedule B2 OEH (2011)	Objectives achieved
Site Assessment	Investigate signs of contamination or odours and vapours. Assess potential contaminant pathways. Use qualified and experienced staff Ensure all field equipment has been calibrated	Clements et.al (2009) NEPM (2013b) Schedule B2 OEH (2011)	Contamination indicators assessed Objectives achieved

Table 15. Investigation Field Sampling QA/ QC program

Criteria	Objective/DQI	References	Evaluation/ comments
QA/QC Soil Sampling Procedure	No cross contamination between samples. Decontamination procedure – New disposable gloves used to collect samples, spades and augers decontaminated between each sampling location. Sampling equipment washed with phosphate-free detergent and rinsed with distilled water for each sampling location. Samples individually stored in clean sampling containers provided by Eurofins or Envirolab. Ensure the proper recording of sample date, locations and sampler. Minimise holding times, temporal and operator influences. Samples stored on ice on the day and sent immediately to the laboratory for delivery the following day. Ensure chain-of-custody procedure. Ensure LOR are appropriate. Rinsate samples undertaken each day for each piece of equipment used. Trip/ filed blank present at each sample site/	AS 4482.1 (2005). AS 4482.2 (1999).	Objective achieved during DSI sampling. Trip blank and rinsate below LOR or acceptable levels.
QA/QC Soil Sampling Procedure	Field inter and intra laboratory duplicates – Divide a single field sample into two separate samples and send half to the main laboratory and half to another laboratory. 2 duplicate samples assessed per 20 samples. Assess precision of the data by calculating the Relative Percent Difference (RPD) using the following formula: $RPD\ (\%) = \frac{Co - Cd}{Co + Cd} \times 200$ Where: Co = Analyte concentration of the original sample Cd = Analyte concentration of the duplicate sample Nominal acceptance criteria of 30% to 50% RDP will be used for field intra laboratory duplicates. This may not always be achieved due to, heterogenous soil or fill and or low analyte concentrations. These factors will be taken into consideration when assessing Intra-laboratory duplicates.		Objective achieved for DSI sampling. All duplicate samples were within acceptable criteria

Table 16. Investigation laboratory QA program.

Criteria	Objective/DQO	References	Evaluation/ comments
Testing Accreditation	Maximise data quality by using NATA accredited laboratories.	Eurofins Sydney (NATA accreditation No. NATA # 1261 Site # 18217 Envirolab Sydney (NATA accreditation No. 2901).	Laboratory employs full QA procedures.
Laboratory QA/QC	Laboratory duplicates - 1 sub-sample duplicate in every 20 samples are analysed to provide information ensure analytical precision). Laboratory control sample - A reference sample of known concentration is analysed in the batch to ensure analysis precision. Spiked samples- A field sample is spiked with a known concentration of the analyte of concern to evaluate analytical techniques. Method blanks - An aqueous solution which is free from contamination is added to the reagents and carried through the analysis procedure to ensure no contamination has occurred during the analysis process. Surrogate standard/spikes - Surrogate compounds are spiked into blanks, standards and samples to evaluate the analysis process.		Laboratory QA results will be checked and retained.

Summary

Appropriate QA and QC procedures were carried out during field sampling and laboratory analysis to meet data quality objectives.

8. Sampling Methodology

8.1. Sampling & Analysis Rationale

Soil sampling occurred within areas of past contaminating activities to assess if the site is suitable for its intended land use change. Sample locations and sampling regime were based on the requirements of NSW EPA (2014), OEH (2011), Clements et.al (2009), Schedule B2 of the NEPM (2013), AS4482.1-2005 and AS4482.2-1999. Grid sampling and judgemental soil sampling was conducted within the AEC around potentially contaminating infrastructure. This sampling method ensured that the sites were adequately assessed, and specific spots were targeted which were deemed to have a higher likelihood of contamination. Groundwater wells at two locations were sampled to assess the potential of groundwater contamination at the site. Surface water sampling was conducted within the drain/creek running though the site. Soil sampling was undertaken at 18 locations at the site. Soil samples were taken within 18 m grid intervals. Some samples were relocated to ensure that areas of potential contamination were sampled adequately. Three judgmental samples sites were assessed within the workshop.

Soil samples were extracted from the surface 0 - 0.15 m BGL at 2 locations (BH8 and BH 9) and below gravel at 0.1 – 0.25 m BGL at 5 locations (BH1, BH2, BH12, BH14 and BH16) Soil samples were extracted under bitumen with gravel base at 0.2 – 0.35 m BGL at 4 locations (BH13, BH15, BH17 and BH18). Soil samples were extracted under concrete at 7 locations. Soil was extracted at depths of 0.1 to 0.35 m BGL (BH3), 0.15 to 0.30 m BGL (BH7, BH10 and BH11), under concrete and gravel base at 0.15-0.30 (BH7) or under concrete and gravel base at 0.2 to 0.35 m BGL (BH5 and BH6) One soil sample (BH 4.04) was taken at 0.4 to 0.55 m BGL adjacent the workshop washdown drain. Two boreholes (BH3 and BH7) were extracted to a depth of 3.3 m BGL. A third borehole was attempted at BH 4 however this was abandoned due to extensive footings within the location. One sample was extracted between the footings and concrete. **Table 17** provides details on the sampling regime taken at the site.

Water samples were taken from 2 established well at the site. Surface water was taken from the drain/creek situated at the site.

Table 17. Details on the sampling regime for the samples taken within the AEC.

Feature	Description
Location	AEC (148 Rouse Street, Tenterfield)
Land area (ha)	0.57
Minimum number of sampling points required (NSW EPA, 1995)	0.6 ha = 15
Sampling points employed	18
Minimum hotspot diameter that can be detected with 95% confidence	23.6 m
Maximum sample point interval (grid size) (m)	18 m
Confidence level	>95%

8.2. Soil Sampling Design

Soil samples were taken with a sample trowel or auger with minimal soil disturbance. Depth samples were extracted (0 – 3.3 m BGL) using a push tube with limited disturbance. Care was taken to provide the best possible location for the soil sample sites. One borehole (BH3) was excavated to 3.3 m BGL adjacent to the washdown water collection sump on the western side of the workshop. One borehole (BH7) was excavated to 3.3 m BGL below the former mechanical pits within the workshop which have been concreted over. Soil was extracted on-site for field screening.

Field screening of soil samples was undertaken with a PID every 0.5 m depth using headspace analysis to determine if volatile contaminants were present. No volatile gas was detected during the site assessment. A minimum of 2 soil samples each borehole were sent for laboratory testing and analysed for CoPC. Soil samples were chosen based on field screening results, soil change or discolouration and odour. If no evidence of potential contamination was detected, then samples were collected from the top and bottom of the borehole, if potential contamination was detected then all samples were collected and tested. A detailed site map in **Appendix A** contains borehole locations. 18 soil sample stations were identified. 23 soil samples were analysed further in a laboratory including 1 background sample taken from the park across the road. 4 duplicate samples (inter and intra laboratory) were analysed for QA/QC. One Trip blank and one rinsate were analysed for QA/QC. Refer to **Table 12 and Appendix G** for sample details and **Appendix A** for the sample locations.

Soil sampling was undertaken by Lise Bolton on 29 and 30 September 2021. Underground service locating was conducted by a qualified professional contractor prior to sampling. Weather conditions were overcast with patches of rain. Samples retained for analysis are presented in **Table 12**. **Appendix D** displays photographs of the sample areas. **Appendix H** presents the sampling methodology. **Appendix I** shows borehole drill logs. **Appendix J** presents the chain-of-custody form acknowledging receipt date and time, and the identity of samples. Analytical results and exceedances are contained in **Appendix G**. Laboratory results and Quality Assurance are presented in **Appendix K.** PID calibration report is presented in **Appendix L**.

Table 18. Soil sample details.

Sample I.D (BH)	Sample location	Sample depth (m)	PID (ppm)	Soil type	Analytes sampled
B1	Background- Adjacent Park (surface)	0 - 0.15	0.2	Grey, silty clay loam	TRH, BTEXN, PAH, Phenols, Metals
1	Near oil drums (under gravel)	0.1 - 0.25	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
2	North-western car park (under gravel)	0.1 - 0.25	0.1	Yellow sandy loan, gravel	TRH, BTEXN, PAH, Phenols, Metals
3-0.1	North of wash down collection sump (under concrete)	0.1 - 0.25	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
3-1.1	North of wash down collection sump (depth sample)	1.1 1.25	0.4	Yellow, sandy clay loam	TRH, BTEXN, PAH, Phenols, Metals, VOC, SVOC
3-3.1	North of wash down collection sump (depth sample)	3.1 – 3.25	0.4	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals
4-0.2	Northeast of mechanical pit (under concrete)	0.2 – 0.35	0.5	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
5	North of workshop collection drain (under concrete)	0.25 - 0.40	0.2	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
6-0.25	South of workshop collection drain (under concrete)	0.25 – 0.40	0.1	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
6-0.4	South of workshop collection drain (depth sample)	0.4 – 0.65	0.1	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
7-0.15	Adjacent to former mechanical pits (under concrete)	0.15 - 0.30	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
7-3.15	Adjacent to former mechanical pits (depth sample)	3.15 – 3.30	0.4	Yellow silty clay loan	TRH, BTEXN, PAH, Phenols, Metals
8	Northwest of drain/creek (surface)	0 - 0.15	0.1	Grey/brown silty clay loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
9	Northeast of drain/creek (surface)	0 - 0.15	0.1	Grey/brown silty clay loam, large rocks	TRH, BTEXN, PAH, Phenols, Metals
10	South of panel beaters (under concrete)	0.15 - 0.30	0.1	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
11	Within oil tank bund (under concrete)	0.15 - 0.30	0.2	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals
12	North of workshop (under gravel)	0.1 - 0.25	0.2	Yellow clay loam	TRH, BTEXN, PAH, Phenols, Metals
13	East of show room (under bitumen)	0.2 - 0.35	0.3	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
14	North of drain/creek (under gravel)	0.1 - 0.25	0.3	Yellow sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
15	West of panel beaters (under bitumen)	0.2 - 0.35	0.1	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
16	East of panel beaters (under gravel)	0.2 - 0.35	0.1	Yellow sandy clay loam	TRH, BTEXN, PAH, Phenols, Metals
17	North of showroom (under bitumen)	0.2 - 0.35	0.2	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
18	North of showroom (under bitumen)	0.2 - 0.35	0.1	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals

8.3. Groundwater and Surface Water Assessment

Groundwater was assessed at the site to determine whether migration of contamination may have occurred from past practices and if contamination is present at levels which could cause harm to human health or the environment. Two Groundwater wells (GW1 and GW2) were present at the site. GW1 was positioned towards the northeast adjacent to the showroom. GW2 was situated to the northwest, west of the panel beaters.

Height measurements were taken from the top of the well covers. Volatile gas was checked within each well using a PID. Wells were purged before sampling. During purging of wells,

physico-chemical parameters, including pH, electrical conductivity, temperature, dissolved oxygen and redox potential, were measured and recorded (**Appendix M**).

Groundwater sampling was undertaken by Lise Bolton on 29 and 30 September 2021. 1 water quality sample was taken from each well. 2 duplicate samples (inter and intra laboratory) were collected for QA/QC. 1 sample was collected from the drain/creek. All samples were sent for laboratory testing and analysed for CoPC. Clear disposable bailers were used to identify if LNAPL was present. Refer to **Table 19** for sample and well details and **Appendix A** for well and surface sampling locations. Analytical results and exceedances are contained in **Appendix G**. Laboratory results and Quality Assurance are presented in **Appendix K.**

Table 19. Monitoring well and surface sample information

ID	Location	Depth	Standing water Level	Screening level	Analysis
GW1	Northeast adjacent to the showroom	2.58 m	1.10 m	0.5 m – 2.5 m	TRH, BTEXN, Metals and phenols
GW2	Northwest west of the panel beaters.	5.5 m	1.70 m	2.5 m – 5.5 m	TRH, BTEXN, Metals and phenols
Drain	Running though the site east the west- Western open section sampled	Varies	0.1 m	N/A	TRH, BTEXN, Metals and phenols

9. Results & Interpretation

The results of the soil analyses from this investigation were compared with the HILs, HSLs and ESLs in the Schedule B(1) Guideline on the Investigation Levels for Soil (NEPC, 2013) and for F3 and F4 hydrocarbons in Friebel and Nadebaum (2011b) using column A 'residential' or column D 'commercial'. Water quality within wells and surface water was compared with Groundwater Investigation Level (GIL) threshold contamination limits. The adopted assessment criteria are based on human health and the protection of aquatic ecosystems in Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater (NEPC 2013a). Analytical results and exceedances are contained in **Appendix G.** Laboratory results and Laboratory Quality Assurance are presented in **Appendix K**.

Laboratory results indicated that BTEXN, PAH and phenols was below the limit of reporting (LOR) within all soil samples analysed at the site. No VOCs were detected in the sample taken adjacent to the oil wash down storage and processing area. Under slab/surface samples contained no OCCs or OCPs indicating that pesticides were not used under slabs tested at the site.

Volatile, F1 hydrocarbons (C_{16} – C_{34}) and F2 hydrocarbons (C_{10} – C_{16}) in all soil samples were below the LOR. Sample sites 1-2 (south western carpark), 1-3-0.1 (adjacent to wash down collection sump), 1-6-0.25 (adjacent to wash down drain), 1-6-0.4 (adjacent to wash down drain), 5-0.12 (adjacent to wash down drain), 1-9 (adjacent to drain/creek), 1-10 (south of panel beaters), 1-11 (below oil storage tank) contained elevated non-volatile hydrocarbons (C_{16} – C_{34}) at a maximum concentration of 940 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 4,500 mg/kg and guidelines ESL level of 1,300 mg/kg. Samples sites 1-6-0.25, 1-6-0.4 which are adjacent to the wash down drain contained elevated non-volatile hydrocarbons (C_{34} – C_{40}) at a maximum concentration of 300 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 6,300 mg/kg and guidelines ESL level of 5,600 mg/kg.

All metal concentrations in soil across the site were well below the guideline criteria.

Hydrocarbons, phenols and BTEXN were not detectable within groundwater at the site. Groundwater sampled from the drain/creek and GW1 wells were above the GIL values for freshwater and marine ecosystem health for chromium and zinc, but below the drinking water guideline level for these metals. Water extracted from the drain/creek was above the freshwater guidelines for copper, but below the drinking water guideline level. All other metals were below GIL values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future residents at the site.

10. Conclusion & Recommendations

Laboratory results indicated that non-volatile hydrocarbons are present at the site within the workshop, western car park, south of the panel beaters and adjacent to the drain/creek, however these levels were well below the adopted guideline values for residential land use including day care centres.

Chromium and zinc, in groundwater at the site were above the GIL for freshwater ecosystem health, but below the drinking water guideline level for these metals. Elevated copper above GIL for freshwater ecosystem health, but below the drinking water guideline was found within the drain/creek. All other metals were below GIL and drinking water values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future visitors or staff at the site.

No other contaminants were identified at the site. Further soil sampling is required when infrastructure such wash down collection sump, wash down drains and oil storage tank are removed to validate that the site is suitable for its intended use. Sampling is also required below any slabs which are removed that were not assessed during this investigation.

11. References & Guidelines

Australian Standard AS4482.1, (2005). Guide to the investigation and sampling of sites with potentially contaminated soil (Part 1: Non-volatile and semi-volatile compounds).

Australian Standard AS4482.2, (1999). Guide to the investigation and sampling of sites with potentially contaminated soil (Part 2: Volatile substances).

Australian Standard AS5667.11, (1998). Water quality—sampling. Part 11: Guidance on sampling of groundwater's.

Clements, L., Palaia, T., and Davis, J (2009). Characterisation of sites impacted by petroleum hydrocarbons- National guideline document. CRC CARE Technical report no. 11.

CRC Care (2017). Risk-based management and remediation guidance for benzo(a)pyrene. Technical report no. 39.

Department of Planning, Industry and Environment (DPIE), (2021). eSPADE. NSW Soil and Land Information System (SALIS). https://www.environment.nsw.gov.au/eSpade2Webapp Accessed 22/03/2021

Friebel, E. and Nadebaum, P. (2011a). Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 1: Technical development document. CRC CARE Technical report no. 10.

Friebel, E. and Nadebaum, P. (2011b) Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document. CRC CARE Technical report no. 10.

Friebel, E. and Nadebaum, P. (2011c). Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 3: Sensitivity assessment. CRC CARE Technical report no. 10.

Jacobson, G. & Lau, J.E (1987). Hydrology of Australia (1:5000000 scle map). Bureau of Minerals and Resources, Canberra.

National Environmental Protection Council (NPEC) Measure, (2013a). Schedule B (1) – Guidelines on the Investigation Levels for Soil and Groundwater

National Environmental Protection Council (NPEC) Measure, (2013b). Schedule B (2) – Guidelines on Data Collection, Sample Design and Reporting.

National Environmental Protection Council (NPEC) Measure, (2013a). Schedule B (7a) – Guidelines on Health-Based Investigation Levels.

New South Wales Office of Environmental Protection Authority (NSW EPA) (2020) Consultants Reporting on Contaminated Land- Contaminated Land Guidelines.

New South Wales Environmental Protection Authority (NSW EPA), (1995). Contaminated sites- Sample design guidelines.

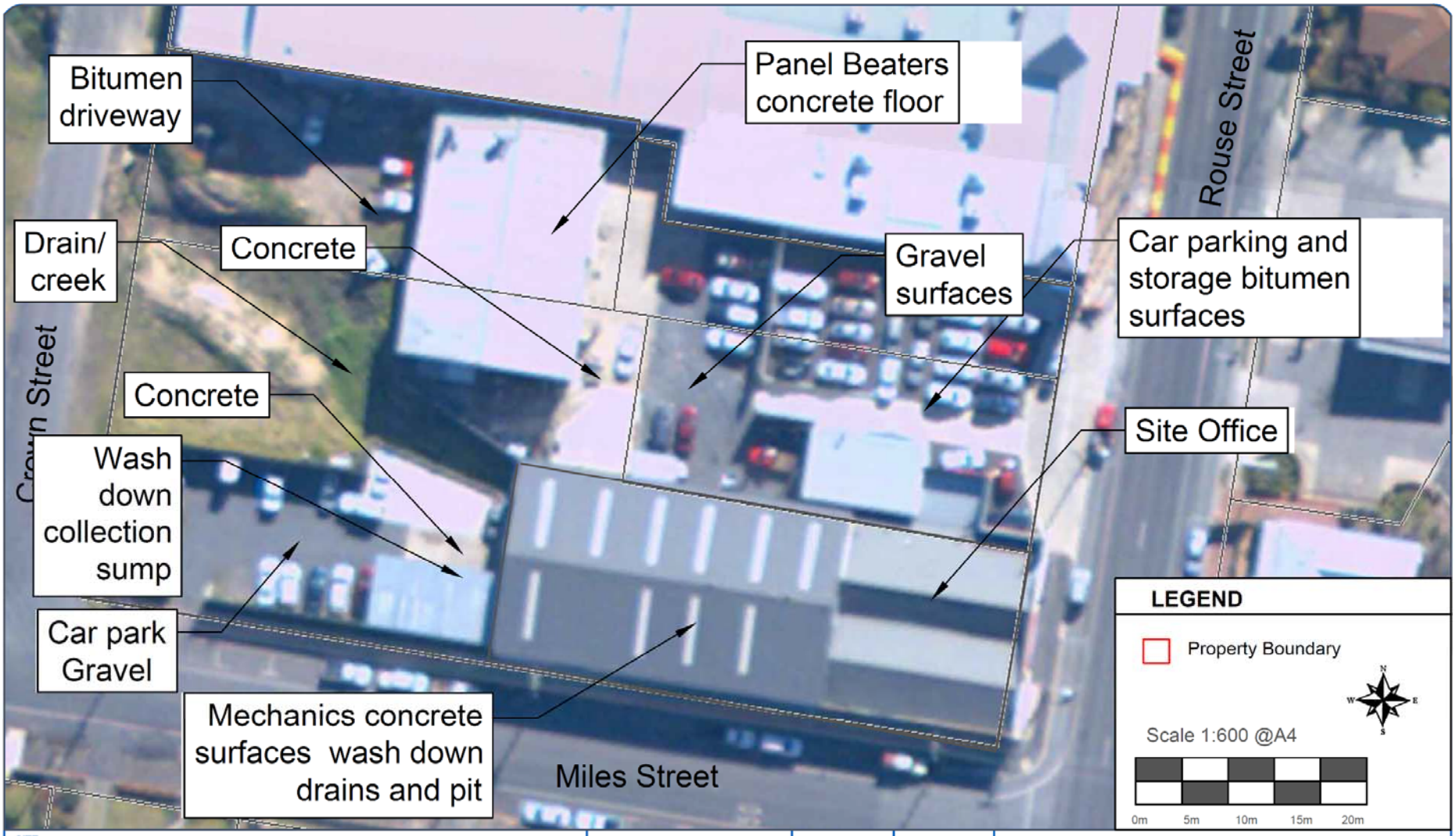
New South Wales Environmental Protection Authority (NSW EPA), (2014). Technical note: Investigation of Service Station Sites.

Office of Environment and Heritage (OEH) (2006) Contaminated Sites – Guidelines for the NSW Site Auditor Scheme (2nd edition).

Tenterfield Shire Local Heritage Register 1 of 2. Final assessment list, November 17, 2004

Appendix A

Site map

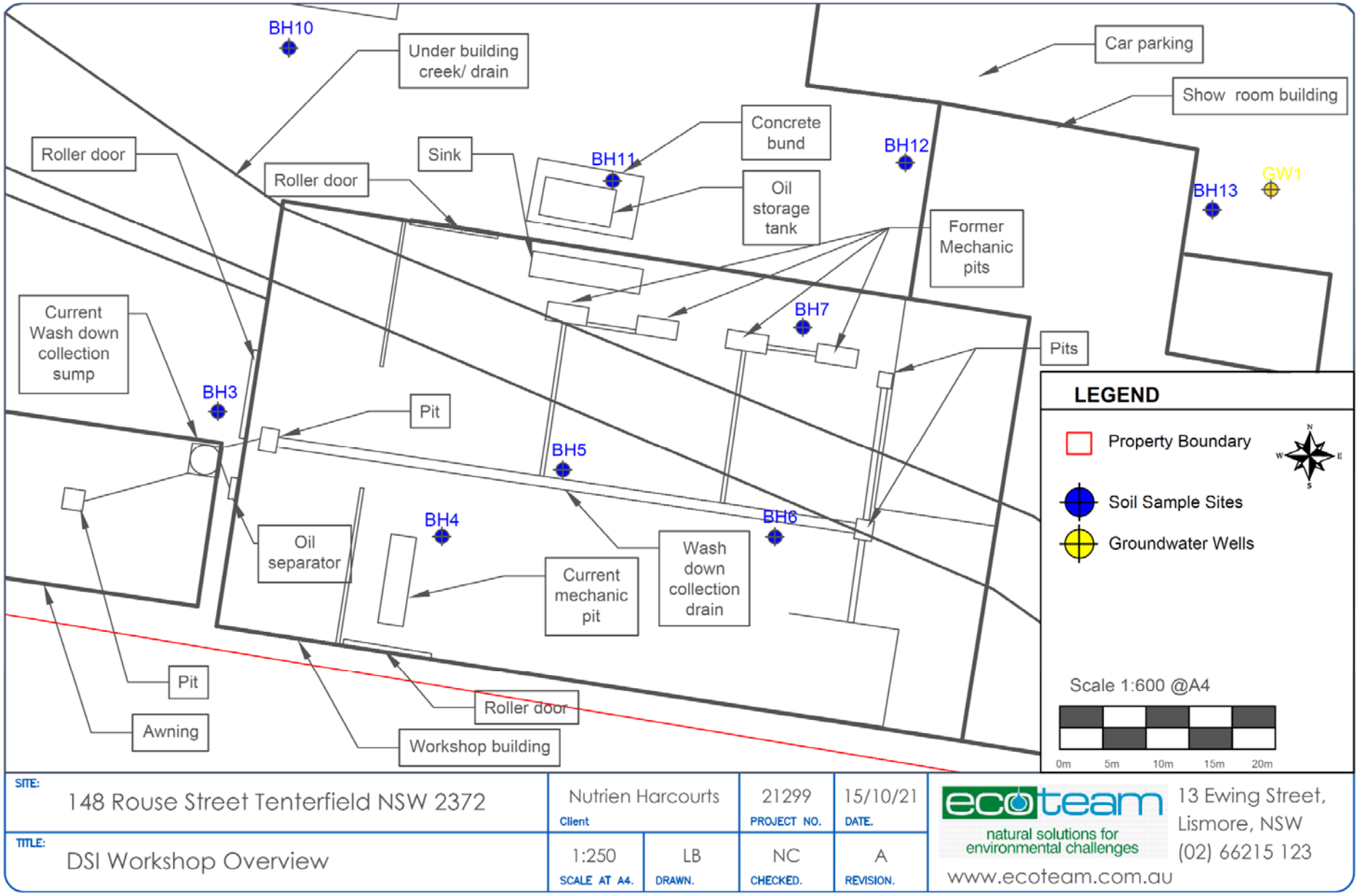


SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: Site Map-Current condition	1:600 (SCALE AT A4.)	LB (DRAWN.)	KB (CHECKED.)	A (REVISION.)

ecoteam natural solutions for environmental challenges
13 Ewing Street, Lismore, NSW (02) 66215 123
www.ecoteam.com.au

SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: DSI Sample Plan	1:600 (SCALE AT A4.)	LB (DRAWN.)	NC (CHECKED.)	A (REVISION.)

ecoteam natural solutions for environmental challenges
13 Ewing Street, Lismore, NSW
(02) 66215 123
www.ecoteam.com.au



SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: DSI Workshop Overview	1:250 (SCALE AT A4.)	LB (DRAWN.)	NC (CHECKED.)	A (REVISION.)

ecoteam natural solutions for environmental challenges
13 Ewing Street, Lismore, NSW
(02) 66215 123
www.ecoteam.com.au

Appendix B

Development Plans

FLOOR PLAN
SCALE 1 : 300

PROJECT	PROJECT ADDRESS	CLIENT	TITLE	SCALE	DRAWN	DATE	DRAWING No.	REV.
CINEMAS/ CHILDCARE/ MEDICAL CENTRE CONCEPT	148 ROUSE ST, TENTERFIELD	CHRIS HSU	FLOOR PLAN	1 : 300 @A3	TP	21/05/21	SK 01	

MGA

Appendix C

Sewage


32
1138201
1
516621
33
1138201
A
150057
B
150057
CROWN STREET
ROUSE STREET
MILES STREET

Appendix D

Site Photographs

	**Plate A- 30/09/2021** Wester Workshop (Panel beaters). View Northern western corner of the site looking east. GW2 situated right.
	**Plate B- 30/09/2021** Drain/creek (left) and raise carpark area (right). View southwestern corner. Looking southeast.
	**Plate C- 30/09/2021** Drain/creek running under Sexton and Green building. under building. Looking east.

	**Plate D- 29/09/2021** Sexton and Green workshop. North-eastern former mechanical pits. Looking East.
	**Plate E- 29/09/2021** Sexton and Green workshop. Current mechanical pit. Looking southwest.
	**Plate F- 29/09/2021** Sexton and Green workshop. Eastern internal drain and pit. Looking east.

	**Plate G- 29/09/2021** Panel beater workshop. Lookings south.
	**Plate H- 29/09/2021** Panel beater workshop. Looking north.
	**Plate I- 29/09/2021** Behind Sexton and Green building. Oil storage tank and bund. Looking south.

	**Plate J- 29/09/2021** Behind Sexton and Green building. View northern boundary. Looking north.
	**Plate K- 29/09/2021** Behind Sexton and Green building. Adjacent to panel beaters building. Looking southwest.
	**Plate L- 30/09/2021** Western side of Sexton and Green building. Oil separator Looking east.

	**Plate M- 30/09/2021** Western side of Sexton and Green building. Wash down storage sump. Looking east.
	**Plate N- 29/09/2021** Behind Sexton and Green building. View south-western corner. Looking northwest.
	**Plate O- 29/09/2021** Front carpark/show area of Sexton Green building. View north-eastern corner. Looking north. GW1 right bottom corner.

Appendix E

Historical Photographs

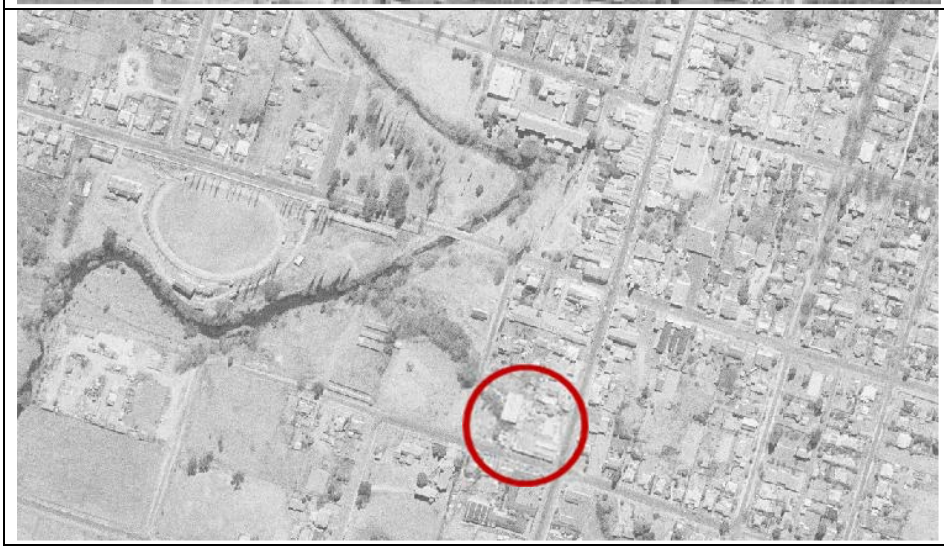
	**Plate P** (1967) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle
	**Plate Q** (1975) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate R** (1985) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.

	**Plate S** (1993) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate T** (2010) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate U** (2013) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.

Plate V (2021) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.

Appendix F

Historical Searches

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Report

Address: - Miles Street, Tenterfield

Description: - Lots A & B D.P. 150057, Lot 1 D.P. 516621 & Lot 33 D.P. 1183201

As regards Lot A D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
28.12.1923 (1923 to 1926)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3542 Fol 34
11.08.1926 (1926 to 1945)	Lionel Clive Crisp (Engineer)	Vol 3542 Fol 34
22.11.1945 (1945 to 1949)	Joseph William Taylor (Grazier) Sidney Taylor (Grazier)	Vol 3542 Fol 34
29.08.1949 (1949 to 1961)	Leslie John Laylor (Grazier)	Vol 3542 Fol 34
14.01.1961 (1961 to 1972)	Francis Roy McMahon (Baker)	Vol 3542 Fol 34
30.11.1972 (1972 to 1973)	Kevin John Moore (Telephone Exchange Operator) Joan Patricia Moore (Married Woman)	Vol 3542 Fol 34
17.12.1973 (1973 to 1980)	Sarah Elizabeth Wright (Widow)	Vol 3542 Fol 34 Now Vol 12350 Fol 237
10.06.1980 (1980 to 1980)	Edward Richard McKenna (Technical Officer) Terence Frederick Kniepp (Solicitor) (Transmission Application not investigated)	Vol 12350 Fol 237
22.09.1980 (1980 to date)	# Sexton & Green (Sales & Service) Pty Ltd	Vol 12350 Fol 237 Now A/150057

# Denotes current registered proprietor

Easements: -

- 25.06.1960 (L 35328 & D.P. 226292) Easement to Drain Water 0.71 metres wide.

Leases: -

- 27.09.1935 to Archibald Colin Bailey (Master Butcher) – expired 13.11.1939.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot B D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.12.1923 (1923 to 1933)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67
30.09.1933 (1933 to 1965)	Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67 Now Vol 4599 Fol 26
16.07.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Vol 4599 Fol 26
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 4599 Fol 26 Now B/150057

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.

Leases: - NIL

As regards Lot 1 D.P. 516621

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1965)	William Robert Crisp (Butcher)	Book 1239 No. 661
29.10.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Book 2772 No. 567
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Book 3106 No. 807 Then Vol 12915 Fol 227 Now 1/516621

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.
- 12.05.2009 (D.P. 1138201) Easement for Loading 5 metres wid.
- 12.05.2009 (D.P. 1138201) Right of Carriageway 2.24 metres wide and variable.
- 12.05.2009 (D.P. 1138201) for Drainage 2.24 metres wide and variable.

Leases: -

- (Book 1713 No. 525) to Archibald Colin Bailey (Master Butcher) – term of 10 years.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot B D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.12.1923 (1923 to 1933)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67
30.09.1933 (1933 to 1965)	Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67 Now Vol 4599 Fol 26
16.07.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Vol 4599 Fol 26
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 4599 Fol 26 Now B/150057

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.

Leases: - NIL

As regards Lot 1 D.P. 516621

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1965)	William Robert Crisp (Butcher)	Book 1239 No. 661
29.10.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Book 2772 No. 567
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Book 3106 No. 807 Then Vol 12915 Fol 227 Now 1/516621

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.
- 12.05.2009 (D.P. 1138201) Easement for Loading 5 metres wid.
- 12.05.2009 (D.P. 1138201) Right of Carriageway 2.24 metres wide and variable.
- 12.05.2009 (D.P. 1138201) for Drainage 2.24 metres wide and variable.

Leases: -

- (Book 1713 No. 525) to Archibald Colin Bailey (Master Butcher) – term of 10 years.

Email: mark.groll@infotrack.com.au 2

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards the part numbered (3) on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1972)	William Robert Crisp (Butcher)	Book 1239 No. 661
20.07.1972 (1973 to 1977)	Luke Geyer (Shop Keeper) Nance Geyer (Married Woman)	Book 3063 No. 81 (Book 3195 No. 628) Now Vol 13390 Fol 229
03.11.1977 (1977 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 13390 Fol 229 Then 33/1183201

# Denotes current registered proprietor

Easements: -

- 19.07.1973 (Book 3105 No. 37 & D.P. 563114) Right of Carriageway – released 15.03.1977

Leases: - NIL

Yours Sincerely,
Mark Groll
22 October 2021

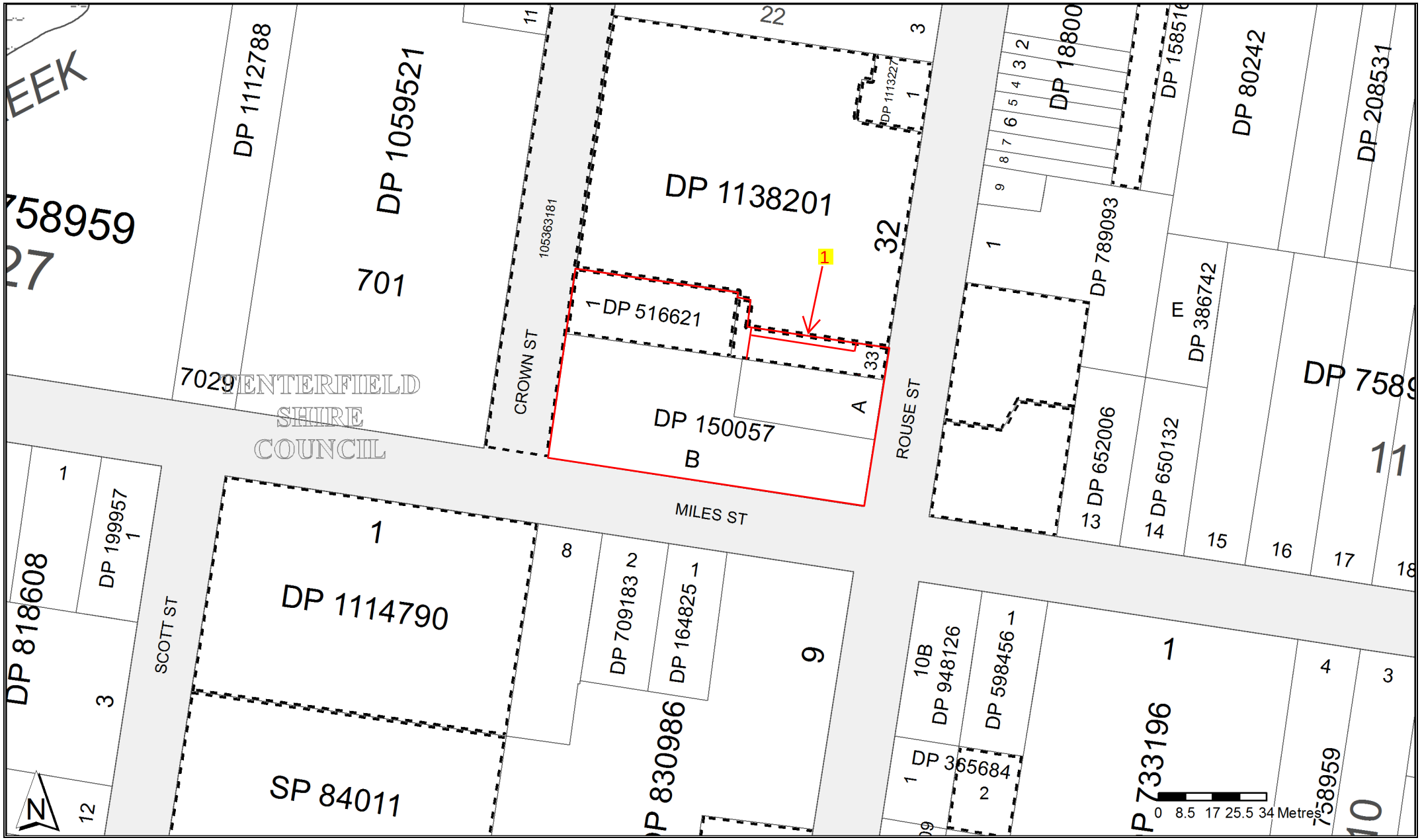
Email: mark.groll@infotrack.com.au 4

LAND REGISTRY SERVICES

Cadastral Records Enquiry Report : Lot B DP 150057

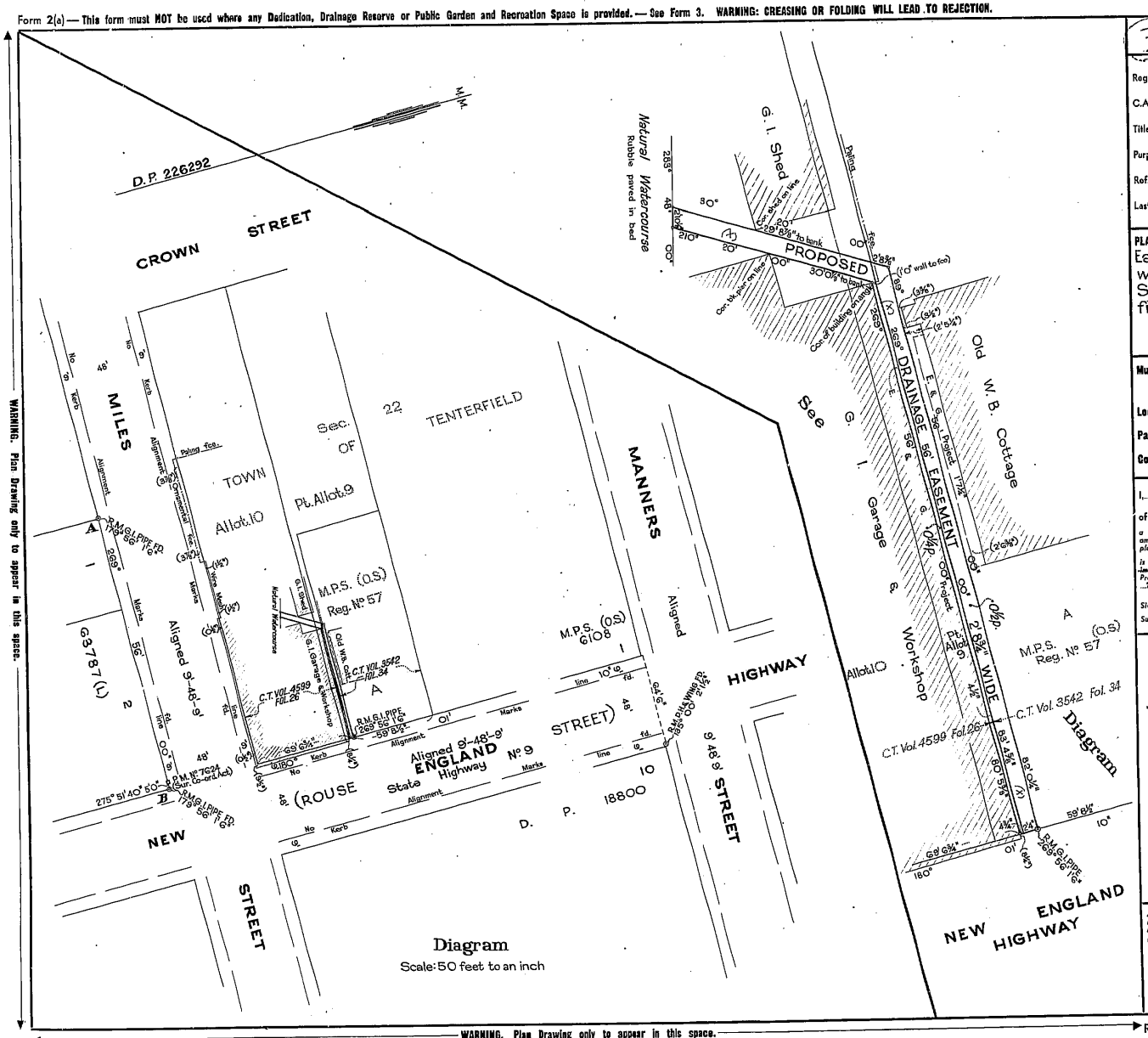
Ref : Tenterfield Lie

Locality : TENTERFIELD
Parish : TENTERFIELD
LGA : TENTERFIELD
County : CLIVE



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Form 2(a) — This form must NOT be used where any Dedication, Drainage Reserve or Public Garden and Recreation Space is provided. — See Form 3. WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION.



WARNING. Plan Drawing only to appear in this space.

M.P.D.

WARNING. Plan Drawing only to appear in this space.

REF. 95478 File: 9/429.112

D.P. 226292

Registered: 12.8.1965

C.A.:

Title System: Torrens

Purpose: Easement

Ref. Map: Town of Tenterfield

Last Plan M.P.S.(O.S.) 57 (Pt.)

PLAN OF Proposed Drainage Easement to be acquired within Allot 10 & Pt. Allot 9 Sec. 22, Town of Tenterfield and Lot A, M.P.S.(O.S.) Reg. No 57

Scale: 10 feet to an inch

OFFICE USE ONLY.

Mun./~~Shire~~ ~~City~~: Tenterfield

Locality: Tenterfield

Parish: Tenterfield

County: Clive

I, William Hugh George

of Department of Main Roads, Sydney

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan

is accurate and has been made *(1) by me (2) ~~under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on 27th Dec. 1964

Signature: William H George 7556

Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Azimuth: A–B F.B. 5611 P.W.M. 52

Statements of Proposed Easements.

Approved

E. T. Moore

Deputy Principal Land Surveyor and Property Officer, Department of Main Roads.

D.M.R. PLAN No.

Approved by Council. I hereby certify that the requirements of the Local Government Act, 1919 (other than the requirements for registration of plans), have been complied with by the applicant in relation to the proposed subdivision set out hereon.

Subdivision No. ..... Date .....

Council Clerk .....

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 226292

FEET	INCHES	METRES
-	0 1/4	0.006
-	0 1/2	0.013
-	1 1/2	0.038
-	3 3/8	0.086
-	3 1/2	0.089
-	3 7/8	0.098
-	4 3/4	0.121
-	8 1/4	0.210
-	9 1/2	0.241
1	-	0.305
1	6	0.457
1	7 1/4	0.489
2	1 1/2	0.648
2	4	0.711
2	5 1/4	0.743
2	6 3/8	0.772
2	8 3/8	0.822
2	8 3/4	0.832
2	10 1/8	0.867
5	-	1.524
8	8 3/4	2.661
9	-	2.743
29	8 7/8	9.065
30	0 7/8	9.166
48	-	14.630
56	-	17.069
59	8 1/2	18.199
64	6	19.660
69	6 3/4	21.203
80	5 3/8	24.521
82	0 1/4	25.000
82	4 5/8	25.111
83	4 5/8	25.416

AC	RD	P	SQ M
-	-	1/4	6.3
-	-	1/2	12.6

AMENDMENTS OR ADDITIONS NOTED ON PLAN IN REGISTRAR GENERAL'S OFFICE.

table of mm

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 2nd day of June, 1977

1

PLAN FORM 2

Plan Drawing only to appear in this space

SIGNATURE AND SEALS ONLY

Executed on behalf of Sexton + Green (Sales + Service) Pty Ltd by

Graham George ROSSINGTON (Director)

Leeayne Carol ROSSINGTON (Secretary)

Mortgagee under Mortgage No 0806718 2
Signed at Sydney this 29th day of December 2008 for National Australia Bank Limited ABN 12 004 044 937 by AM4 chu its duly appointed Attorney under Power of Attorney No. 39 Book 4512

AB203821

Level 2 Attorney

Witness/Bank Officer
255 George Street, Sydney NSW

Executed and certified correct in accordance with Section 127 Corporations Act 2001 by the corporation named below by the authorised person(s) whose signature(s) appear below.
Corporation: Tenterfield Agricultural Society Ltd
Gerard Hanno (Director)
Marcus Joseph Stephan (Director)

The Department of Lands Approval

.....in approving this plan certify
[Authorised Officer]
st all necessary approvals in regard to the allocation of the land
own hereon have been given
ignature .....
ate .....
le Number .....
ffice .....

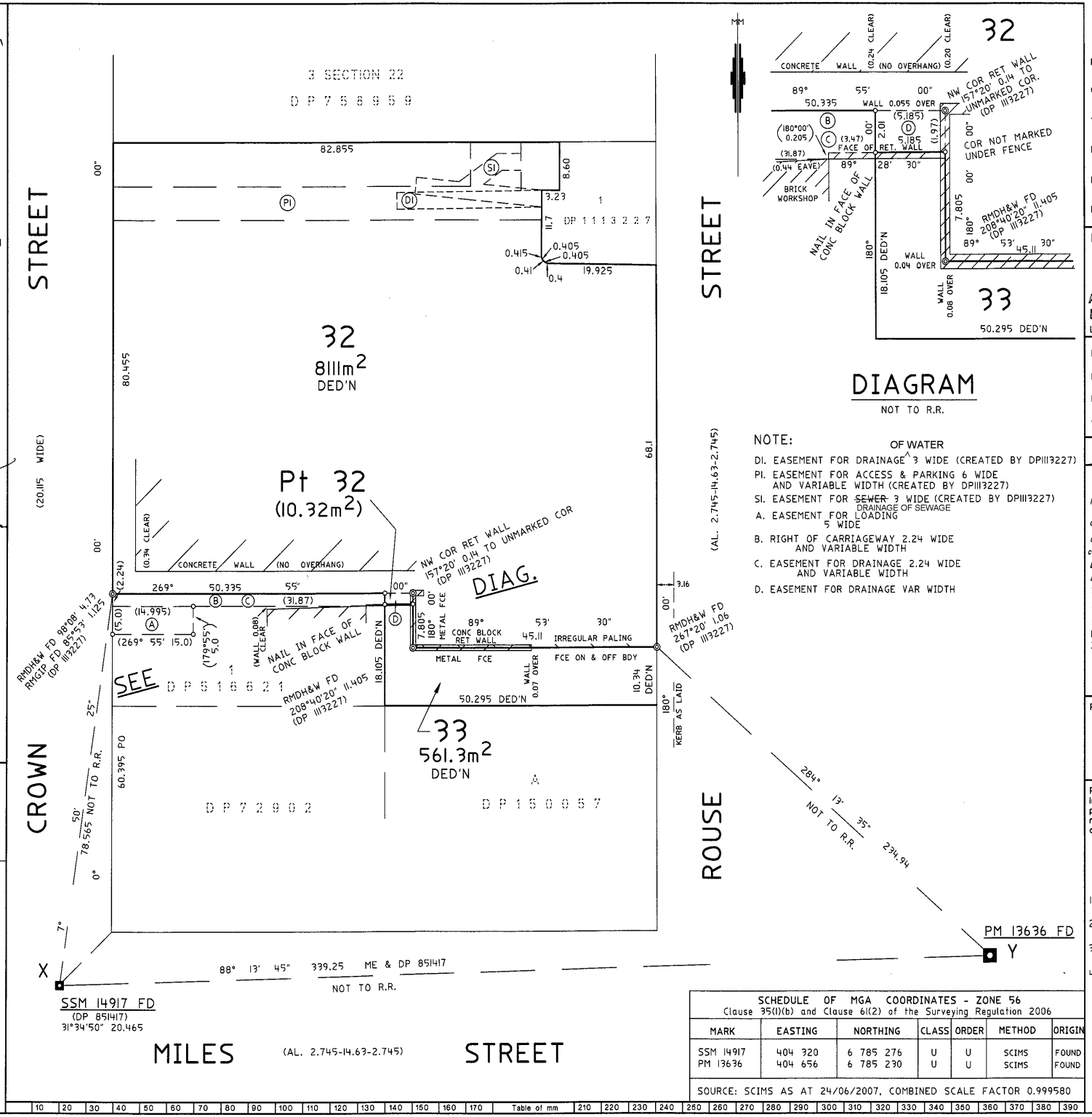
Subdivision Certificate

ertify that the provisions of s109J of the Environmental Planning
d Assessment Act 1979 have been satisfied in relation to the
roposed SUBDIVISION set out herein
× (insert or "subdivision" or "new road")
× Authorised person/General Manager/Accredited Certifier
nsent Authority TENTERFIELD SHIRE COUNCIL
te of Endorsement 17 December 2008
ccreditation No. .....
bdivision Certificate No. 103
e No. DA 2008/075

te:
hen the plan is electronically lodged in the Land Titles Office, should include a signature in an electronic or digital format proved by the Registrar General.

× Delete whichever is inapplicable

SURVEYOR'S REFERENCE: 0731 Checklist



DIAGRAM

NOT TO R.R.

NOTE: OF WATER

DI. EASEMENT FOR DRAINAGE 3 WIDE (CREATED BY DP1113227)
PI. EASEMENT FOR ACCESS & PARKING 6 WIDE AND VARIABLE WIDTH (CREATED BY DP1113227)
SI. EASEMENT FOR ~~SEWER~~ 3 WIDE (CREATED BY DP1113227) DRAINAGE OF SEWAGE
A. EASEMENT FOR LOADING 5 WIDE
B. RIGHT OF CARRIAGEWAY 2.24 WIDE AND VARIABLE WIDTH
C. EASEMENT FOR DRAINAGE 2.24 WIDE AND VARIABLE WIDTH
D. EASEMENT FOR DRAINAGE VAR WIDTH

SCHEDULE OF MGA COORDINATES - ZONE 56
Clause 35(1)(b) and Clause 61(2) of the Surveying Regulation 2006

MARK	EASTING	NORTHING	CLASS	ORDER	METHOD	ORIGIN
SSM 14917	404 320	6 785 276	U	U	SCIMS	FOUND
PM 13636	404 656	6 785 230	U	U	SCIMS	FOUND

SOURCE: SCIMS AS AT 24/06/2007, COMBINED SCALE FACTOR 0.999580

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1138201 P

Registered: 12.5.2009
C.A. SEE CERTIFICATE
Title System: TORRENS
Purpose: SUBDIVISION
Ref. Map: TENTERFIELD SH2#
Last Plan DP1113227, DP587603, DP851417

PLAN
OF SUBDIVISION OF LOT 2 IN DP 1113227, LOT 3 IN DP 587603 & LOT 2 IN DP 851417 AND EASEMENTS WITHIN LOT 1 IN DP516621
Lengths are in metres. Reduction Ratio 1:500

LGA: TENTERFIELD
Locality: TENTERFIELD
Parish: TENTERFIELD
County: CLIVE

This is sheet 1 of my plan in ~~sheets~~ (Delete if inapplicable)

Survey Certificate
Surveying Regulation, 2001

I, ANTHONY T HARVEY
ENVIROLINK CONSULTING
of 95 BARKER ST CASINO 2470

a surveyor registered under the Surveying Act 2002, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveying Regulation 2001 and was completed on 3rd Mar 2007
The survey relates to BOUNDARY ADJUSTMENT AND EASEMENTS ONLY

Datum: 'X' - 'Y'
Zone: Urban
(Signature) A.T. Harvey
Surveyor registered under the Surveying Act, 2002

Plans used in preparation of survey/~~compilation~~
DP 587603 DP 1113227 DP 851417
DP 516621

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

IT IS INTENDED, PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919, AS AMENDED, TO CREATE:-

1. EASEMENT FOR LOADING 5 WIDE
2. RIGHT OF CARRIAGEWAY 2.24 WIDE AND VARIABLE WIDTH
3. EASEMENT FOR DRAINAGE 2.24 WIDE AND VARIABLE WIDTH
4. EASEMENT FOR DRAINAGE VAR WIDTH

Form 1 DP563114 OFFICE USE ONLY

PLAN OF SUBDIVISION

OF LOT 2 D P 516621 BEING LAND IN ~~OF ALLOTMENT 8 SECTION 22~~ CONVEYANCE BOOK 3063 NO 81

Mun./~~Shire/City~~ TENTERFIELD

Town or Locality TENTERFIELD

Parish TENTERFIELD

County CLIVE

LENGTHS ARE IN METRES

Scale 1:400

D P 563114

Registered: LN. 19.7.1973

C.A.: Nº 341/73 OF 21.5.1973

Title System: OLD SYSTEM

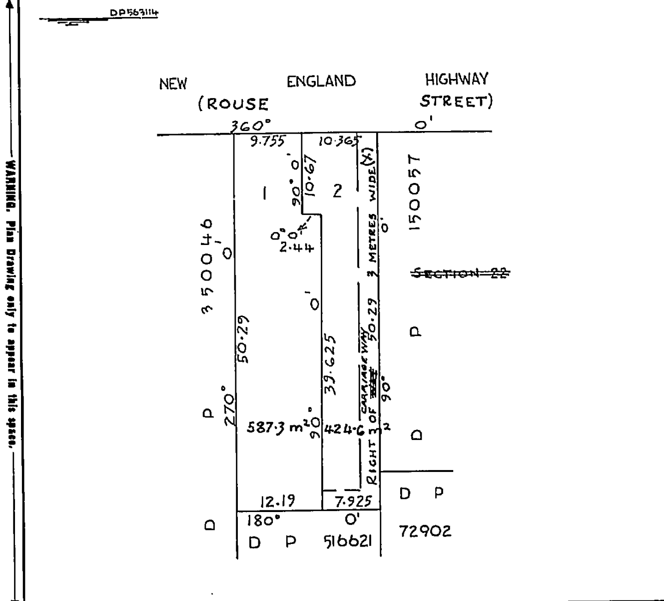
Purpose: SUBDIVISION

Ref. Map: TENTERFIELD SH 2#

Last Plan: D P 516621

YOO2AID

WARNING. Plan Drawing only to appear in this space.



Signatures, Seals and Statements of Intention to dedicate public roads or public reserves or create drainage reserves, easements, or restrictions as to user.

Pursuant to Section 88B of the Conveyancing Act it is intended to create a right of carriageway 3 metres wide

COPY OF INSTRUMENT FILED AS DEED BOOK 3105 Nº 37

[signatures]

~~I, ... of .... a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made (1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on†~~

Datum Line of Azimuth: Signature .... Surveyor Registered under Surveyors Act, 1929, as amended.

* Strike out either (1) or (2). † Insert date of survey.

Council Clerk's Certificate.

I hereby certify that—
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
*(b) the requirements of Section 24B of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended,
have been complied with by the applicant in relation to the proposed SUBDIVISION (Insert "new road" or "subdivision") set out herein.

Subdivision No. 341/73
Date 21/5/1973

(Signature) [signature] Council Clerk.

* NOTE.—This part of certificate to be deleted where the application is only for the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water Sewerage and Drainage Board.

MPD DP 563114 SURVEYORS REFERENCE

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 20th day of December, 1976.

[signature]

12350237

[redacted]FICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

Vol. 12350 Fol. 237
SEE AUTO FOLIO
Edition issued 14-2-1974

Appln. No.22902

Prior Title Vol.3542 Fol.34

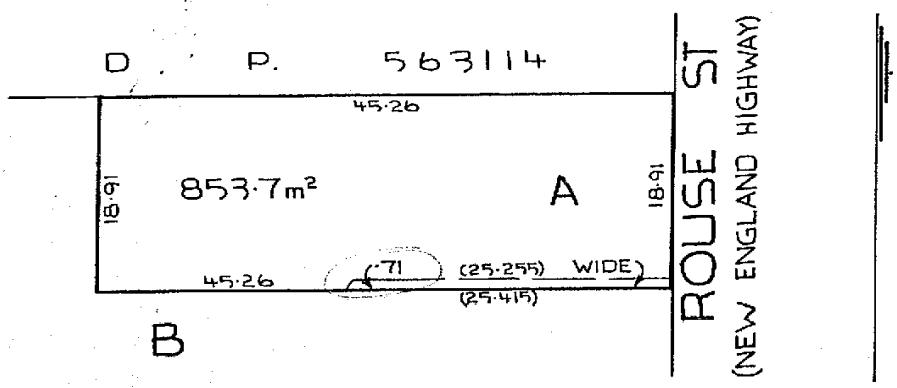
(Page 1) Vol. 12350 Fol. 237

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



N656167

REDUCTION RATIO 1:500

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot A in Deposited Plan 150057 in the Municipality of Tenterfield Town and Parish of Tenterfield and County of Clive being part of Allotment 9 of Section 22 granted to Edmund Curry on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~SARAH ELIZABETH WRIGHT, of Tenterfield, Widow.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Drainage created by Notice of Resumption No.L35328 affecting the part of the land above described .71 metres wide shown in the plan hereon. designated (x) in DP 226292

R852310(A)

S600527R

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~Edward Richard McKenna of Lurnea, Technical Officer and Terence Frederick Kneipp of Tenterfield, Solicitor as joint tenants~~	~~Transmission~~	~~R852310~~	~~---~~	~~10-6-1980~~	
Sexton & Green (Sales & Service) Pty. Ltd.	Transfer	S600527		22.9.1980	

CANCELLED

SEE AUTO FOLIO

Vol. 12350 Fol. 237

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

[redacted]ICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

Vol. 12915 Fol. 227

Edition issued 30-10-1975.

(Page 1) Vol. 12915 Fol. 227

IVA NO. 17014

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

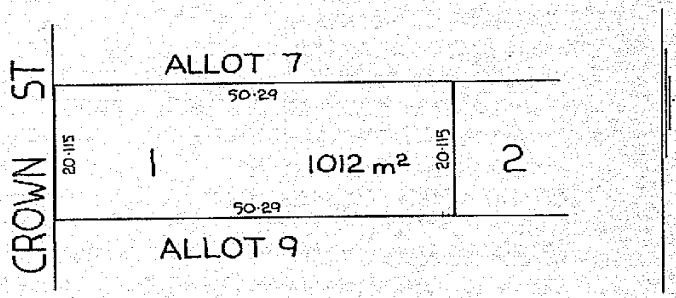
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



IVA 17014 ST. 886

REDUCTION RATIO 1:800

ESTATE AND LAND REFERRED TO

S
Estate in Fee Simple in Lot 1 in Deposited Plan 516621 at Tenterfield in the Municipality of Tenterfield Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

MORTGAGEES

~~ERIC CLAUDE JOSEPH COOK of Caloundra, in the State of Queensland, Company Director as to one undivided one-third share and JESSIE BERYL COOK his wife, as to the remaining two undivided one-third shares as Tenants in Common.~~

SECOND SCHEDULE

GRY
1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION The land within described is held subject to any subsisting interest (as defined in Section 28A of the Real Property Act, 1900). 30-10-1975
3. ~~Caveat No.P543164 by the Registrar General.~~ Withdrawn Q559276

Vol. 12915 Fol. 227

Q559276E

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Sexton & Green (Sales & Service) Pty. Limited	Transfer	Q559276	15.2.1978		

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

13390227

[redacted]CATE OF TITLE

NEW SOUTH WALES [redacted] PROPERTY ACT, 1900

IVA No.24617

Vol. 13390 Fol. 227

EDITION ISSUED 25 7 1977

(Page 1) Vol. 13390 Fol. 227

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

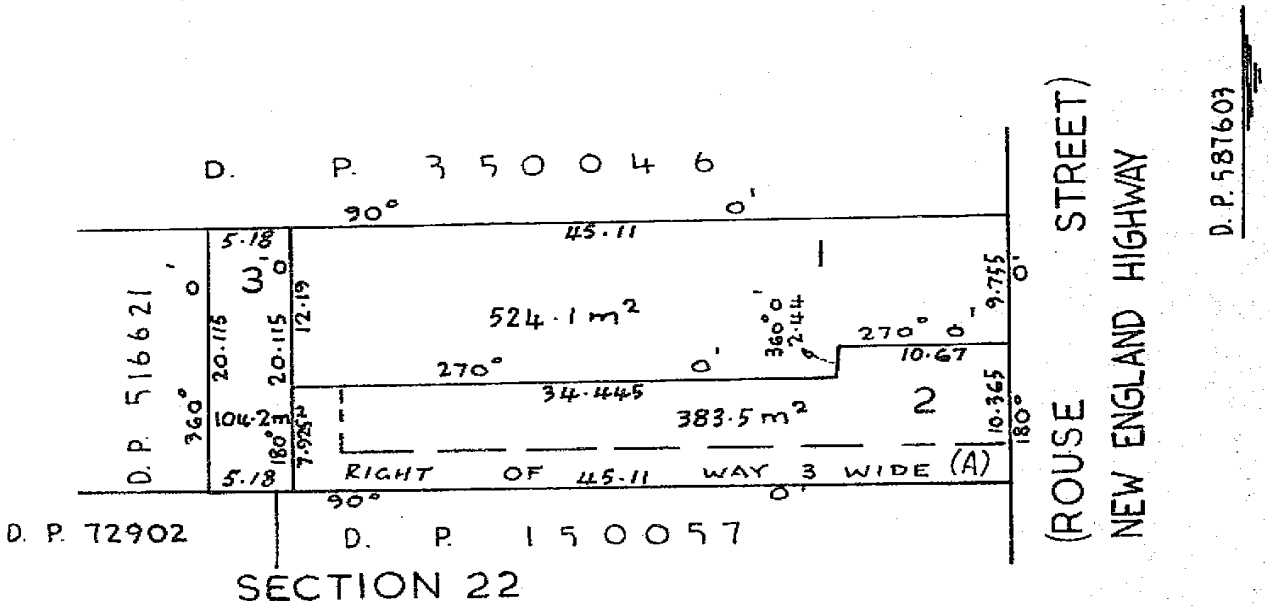
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

S Estate in Fee Simple in Lot 1 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

CRY
EC
1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25-7-1977
RCZ
3. Right of Carriageway appurtenant to the land above described created by the registration of Deposited Plan 587603 See Deed Book 3256 No.16.

X228442 2T91

Vol. 13390 Fol. 227

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Nance Oenone Geyer by Transmission X228442. Registered 27-11-1987					

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

97-01 T

[redacted]

TRANSFER

Real Property Act, 1900

0
296528 W

Office of State Revenue use only

$2.00 220595 220S 04 8004861977/03

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

Volume 13390 **Folio** 227 NOW BEING 1/587603

In the Shire of Tenterfield Parish of Tenterfield County of Clive

Certificate Application

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
39u	REED HANIGAN & TURNER LAW STATIONERS SYDNEY DX. 452 SYDNEY. PH.: 252 1466 REFERENCE (max. 15 characters): STUART WALDOCK

(C) **TRANSFEROR** NANCE OENONE GEYER

(D) acknowledges receipt of the consideration of forty four thousand dollars ($44,000.00)

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. Reservations & Conditions 2. Qualified Title 3. DP587603 Right of Carriageway

(F) **TRANSFEREE**

T

GARY WAYNE WALDOCK and ROSLYN ANNE WALDOCK of Tenterfield in the State of New South Wales as Joint Tenants as to 84 per centum and SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED (ACN 001 089 210) whose registered office is 320 Rouse Street Tenterfield, aforesaid as to the remaining 16 per centum thereof

(G) **TENANCY:** Tenants in Common OFF QG

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** 5th June 1995

Signed in my presence by the Transferor who is personally known to me.

Melinda Wilkes
Signature of Witness

MELINDA WILKES
Name of Witness (BLOCK LETTERS)

133 Castlereagh St, Sydney
Address of Witness

NANCE OENONE GEYER
by Protective Commissioner
Signature of Transferor

Signed in my presence by the Transferee who is personally known to

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

ROGER HARDINGE BRAHAM
SOLICITOR
NEW SOUTH WALES & QUEENSLAND
320 ROUSE STREET TENTERFIELD
Signature of Transferee

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

18-5-95

13390228

[redacted]CATE OF TITLE

NEW SOUTH WALES

[redacted] PROPERTY ACT, 1900

IVA No.24617

Vol. 13390 Fol. 228

EDITION ISSUED

25 7 1977

13390 Fol. 228

(Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

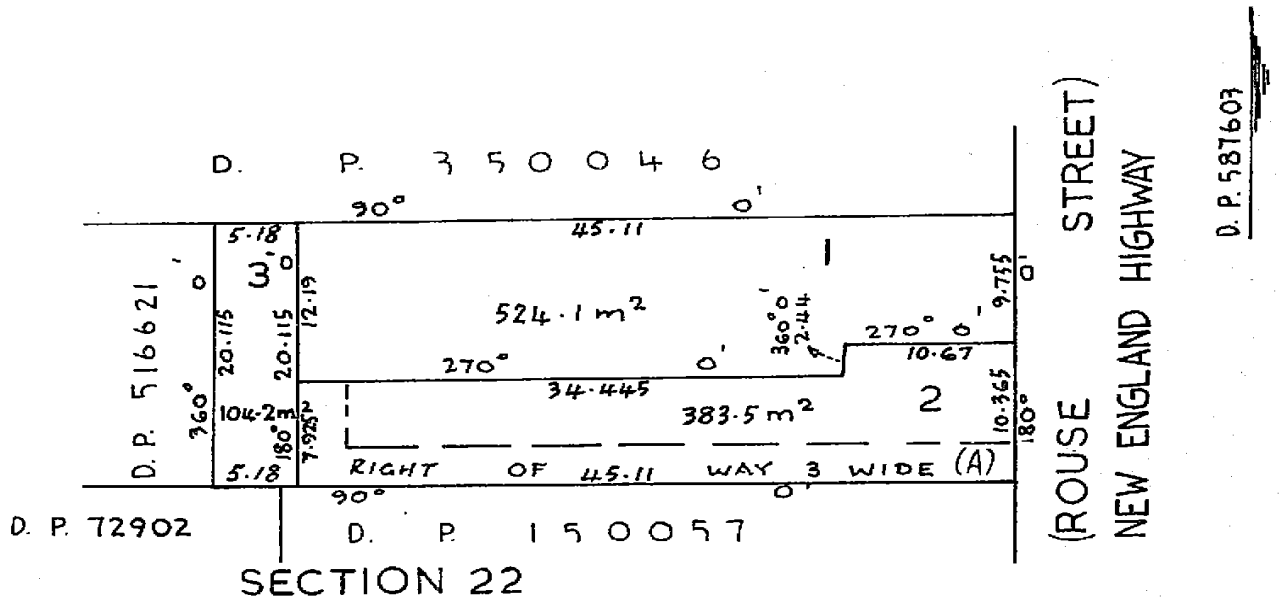
CANCELLED

SEE AUTO FOLIO

Registrar-General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25.7.1977
3. Right of Carriageway affecting the part of the land above described shown in the plan hereon title diagram as "Right of Way 3 metres wide" created by the registration of Deposited Plan 587603
   See Deed Book 3256 No.16.
4. ~~Caveat No.Q289229 by the Registrar General~~. Withdrawn Q433003

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Vol. 13390 Fol. 228

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar General
	NATURE	NUMBER	DATE		
Sexton & Green (Sales & Service) Pty. Limited.	Transfer	Q433003	-------	3-11-1977	[signature]

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT			PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
NATURE	NUMBER	DATE						

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

97-01 T

[redacted]

TRANSFER

Real Property Act, 1900

O 694273 K

Office of Stat

OFFICE OF STATE REVENUE
STAMP DUTY (N.S.W. TREASURY) N19
1994/95
DUTY $ 10-00 8005/804

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

ALL THAT the Transferors' Eighty Four (84) per centum share or interest in Part Lot 2 D.P. 851417 which was formerly part of Lot 1 D.P. 587603

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
39u	REED HANIGAN & TURNER LAW STATIONERS SYDNEY DX. 452 SYDNEY. PH.: 232 1466 REFERENCE (max. 15 characters): SCB SEXTON

(C) **TRANSFEROR** GARY WAYNE WALDOCK and ROSLYN ANNE WALDOCK

(D) acknowledges receipt of the consideration of ....ONE..DOLLAR..($1.00.).....

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T

SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED (A.C.N. 001 089 210)

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** ...../...../...1995.....

Signed in my presence by the Transferor who is personally known to me.

.....
Signature of Witness

ROGER HARDINGE BRAHAM
SOLICITOR
NEW SOUTH WALES & QUEENSLAND
220 ROUSE STREET TENTERFIELD

Name of Witness (BLOCK LETTERS)

.....
Address of Witness

.....
Signature of Transferor

Signed in my presence by the Transferee who is personally known to me

.....
Signature of Witness

.....
Name of Witness (BLOCK LETTERS)

.....
Address of Witness

THE COMMON SEAL of SEXTON & GREEN (Sales & Service) Pty. Limited (ACN 001 089 210) was hereunto affixed in the presence of:

SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED A.C.N. 001 089 210 Seal

Secretary

Signature of Transferee Director

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only) .....

13390229

CERTIFICATE OF TITLE

NEW SOUTH WALES — PROPERTY ACT, 1900

Vol. 13390 Fol. 229

EDITION ISSUED 25 7 1977

IVA No.24617

13390 229 Fol. (Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

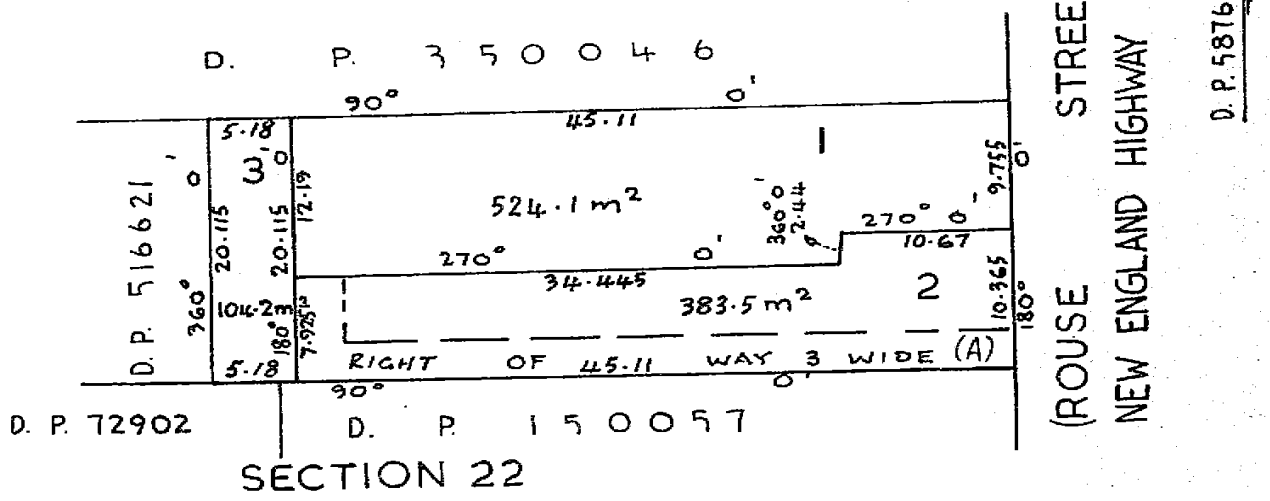
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 3 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

S

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25-7-1977

~~3. Caveat No.Q289229 by the Registrar General.~~ Withdrawn Q433004

GRY QG

Vol. 13390 Fol. 229

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Sexton & Green (Sales & Service) Pty. Limited.	Transfer	Q433004	------	3-11-1977	

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Appendix G

Analytical Summary

Contaminants of Concern (mg/kg)				TRH F1 (C_6 to C_{10})	TRH F2 (C_{10} to C_{16})	TRH F3 (C_{16} to C_{34})	TRH F4 (C_{34} to C_{40})	Benzene	Toluene	Ethylbenzene	Xylene	Naphthalene	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	PAH – BaP TEQ	Total PAH	Phenol	DDT+DDE+DDD	Aldrin & dieldrin	Chlordane	Endosulfan	Endrin	Heptachlor	HCB	Methoxychlor	Toxaphene	Chlorpyrifos
Assessment Criteria		HIL	Depth										100	20	100	6000	300	40	400	7,400	3	300	3,000	240	6	50	270	10	6	10	300	20	160
		HSL-Sand	0-1m	45	110	4,500	6,300	0.5	160		40	3																					
		HSL-Sand	1-2m	70	240			0.5	220		60																						
		HSL-Sand	2-3m	110	440			0.5	310		95																						
		ESL	0-2m	180	120	1,300	5,600	95	135	185	95	170	100		330	140	1100		60	390	0.7			180									
Sample ID	Sample Description	Sample Type	Depth (mm)	Sample Details																												
1-1	Grey, silty clay loam, moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	240	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.3	< 0.4	8	18	230	< 0.1	< 5	170	< 0.5	< 0.5	< 0.5										
1-2	Brown sandy clay, gravel,moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	210	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	11	< 0.4	20	17	150	< 0.1	8.7	88	< 0.5	< 0.5	< 0.5										
1-3-0.1	Yellow sandy loan, gravel,moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	120	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	6.7	0.4	13	16	160	< 0.1	< 5	86	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-3-1.1	Brown sandy clay, gravel,moist, high plasticity	Soil	1.1 .1.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.3	< 0.4	< 5	100	38	< 0.1	< 5	130	< 0.5	< 0.5	< 0.5										
1-3-3.1	Yellow, sandy clay loam,moist, low plasticity	Soil	3.1 – 3.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	7.3	< 5	5.7	< 0.1	< 5	39	< 0.5	< 0.5	< 0.5										
1-4-0.2	Grey heavy claymoist,high plasticity	Soil	0.2 – 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	5.7	< 0.4	17	9.3	7.1	< 0.1	7.7	48	< 0.5	< 0.5	< 0.5										
1-5	Brown sandy clay, gravel,moist, low plasticity	Soil	0.25 - 0.40	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	9.6	< 0.1	< 5	17	< 0.5	< 0.5	< 0.5										
1-6-0.25	Red sandy loam, gravel,moist, low plasticity	Soil	0.25 – 0.40	< 20	< 50	660	200	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	6.5	7.2	310	< 0.1	< 5	180	< 0.5	< 0.5	< 0.5										
1-6-0.40	Red sandy loam, gravel,moist, low plasticity	Soil	0.4 – 0.65	< 20	< 50	940	300	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	32	< 0.1	< 5	9.8	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-7-0.15	Red sandy loam, gravel,moist, low plasticity	Soil	0.15 - 0.30	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	6	< 0.4	16	< 5	12	0.1	< 5	37	< 0.5	< 0.5	< 0.5										
1-7-3.15	Brown sandy clay, gravel,wet, low plasticity	Soil	3.15 – 3.30	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	17	< 5	13	< 0.1	< 5	36	< 0.5	< 0.5	< 0.5										
1-8	Yellow silty clay loan,moist, low plasticity	Soil	0 - 0.15	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.6	< 0.4	13	5	9.7	< 0.1	6	49	< 0.5	< 0.5	< 0.5										
1-9	Grey/brown silty clay loam, gravel,moist, low plasticity	Soil	0 - 0.15	< 20	< 50	160	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.4	< 0.4	13	9.4	43	< 0.1	< 5	150	< 0.5	< 0.5	< 0.5										
1-10	Grey/brown silty clay loam, large rocks, moist, low plasticity	Soil	0.15 - 0.30	< 20	< 50	140	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.5	1	13	23	150	< 0.1	6.8	180	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-11	Grey heavy clay,moist, high plasticity	Soil	0.15 - 0.30	< 20	< 50	100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	8.6	52	< 0.1	< 5	110	< 0.5	< 0.5	< 0.5										
1-12	Grey heavy clay,moist, high plasticity	Soil	0.1 - 0.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3	< 0.4	8.1	7	51	1.3	< 5	65	< 0.5	< 0.5	< 0.5										
1-13	Yellow clay loam,moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	< 5	< 0.1	< 5	26	< 0.5	< 0.5	< 0.5										
1-14	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.2	< 0.4	< 5	< 5	20	< 0.1	< 5	40	< 0.5	< 0.5	< 0.5										
1-15	Yellow sandy clay, gravel, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.2	< 0.4	10	< 5	6.6	< 0.1	5.6	32	< 0.5	< 0.5	< 0.5										
1-16	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.2	< 0.4	17	12	89	< 0.1	< 5	140	< 0.5	< 0.5	< 0.5										
1-17	Yellow sandy clay loam, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.9	< 0.4	5.4	< 5	< 5	< 0.1	9.4	14	< 0.5	< 0.5	< 0.5										
1-18	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.6	< 0.4	5.6	< 5	5.6	< 0.1	< 5	16	< 0.5	< 0.5	< 0.5										
Further Analysis																																
No. Samples				22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	3	3	3	3	3	3	3	3	3	0
Samples above LOR				0	0	0	2	0	0	0	0	0	15	2	16	12	20	2	6	22	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	940	300	0	0	0	0	0	11	1	20	100	310	1	9	180	0	0	0	0	0	0	0	0	0	0	0	0	0
Average				10	25	149	68	0	0	0	0	0	3	0	9	12	64	0	4	76	0	0	0	0	0	0	0	0	0	0	0	0	0
Standard Deviation				0	0	222	61	0	0	0	0	0	2	0	6	21	84	0	2	58	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Required Sample				0	0	14	5	0	0	0	0	0	414	0	5	35	12	0	49	4	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL				10	25	231	91	0	0	0	0	0	4	0	11	19	95	0	5	97	0	0	0	0	0	0	0	0	0	0	0	0	0
Coefficient of Variance (CV)				0	0	1	1	0	0	0	0	0	1	1	1	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Duplicate Anlysis																																
7-3.15	Sample 1			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	17	< 5	13	< 0.1	< 5	36	< 0.5	< 0.5	< 0.5										
7-3.15-B	Duplicate 1			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	12	< 5	8.5	< 0.1	< 5	23	< 0.5	< 0.5	< 0.5										
	Duplicate RPD 1			0	0	0	0	0	0	0	0	0	0	0	34.48	0	41.86	0	0	44.07	0	0	0										
7-9	Sample 2			< 20	< 50	160	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.4	< 0.4	13	9.4	43	< 0.1	< 5	150	< 0.5	< 0.5	< 0.5										
7-9-B	Duplicate 2			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.1	< 0.4	11	8.5	43	< 0.1	< 5	140	< 0.5	< 0.5	< 0.5										
	Duplicate RPD 2			0	0	0	0	0	0	0	0	0	7.059	0	16.67	0	0	0	0	6.897	0	0	0										

**A multiplier of 0.5 was applied to results below the LOR for assessment purposes.*

Notes

- *Highlighted results are above guideline values (Yellow = HIL, Orange=HIL and EIL).*
- *Background sample was not included in the analysis*
- *Samples were only analysed for targeted CoPC*

- *HILs and EILs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013).Tables 1A(1), 1(B)4, 1(B)5.*

Contaminants of Concern (mg/kg)			TRH F1 (C_6 to C_{10})	TRH F2 (C_{10} to C_{16})	Benzene	Toluene	Ethylbenzene	Xylene	Naphthalene	Benzo(a)pyrene	Arsenic	Cadmium	Chromium	Copper	Lead	Mecury	Nickel	Zinc	PAH – BaP TEQ	Total PAH	Phenols
Assessment Criteria	Freshwater		1	1	0.95	0.18	0	0.35	0.016	0.0002	0.024	0.0002	0.001	0.0014	0.0034	NL	0.011	0.008	NL	NL	0.32
	Drinking Water				0.001	0.8	0.3	0.6	0	0.00001	0.01	0.002	0.05	1	0.01	0.001	0.02	3	NL	NL	0.4
Sample ID	Sample Type	Depth (m)																			
Drain	Water	0.1	< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.0002	0.001	0.005	0.003	< 0.0001	< 0.001	0.072	< 0.001	< 0.001	< 0.003
GW1	Water		< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	0.003	< 0.0002	0.005	0.001	0.028	< 0.0001	0.001	0.021	< 0.001	< 0.001	< 0.003
GW2	Water		< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.0002	< 0.001	< 0.001	0.001	< 0.0001	< 0.001	0.005	< 0.001	< 0.001	< 0.003
Further Analysis																					
No. samples			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Samples above LOR			0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0	0	0
Max Conc			0	0	0	0	0	0	0	0	0	0	0.001	0.005	0.003	0	0	0.072	0	0	0

Notes
Highlighted results are above guideline values.
**Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC /ARMCANZ, 2000), 95% Protection Level for Fresh and Marine Water.*
***Australian Drinking Water Guidelines (National Health and Medical Research Council, Agricultural and Resources Management Council of Australia and New Zealand) 2011.*

Appendix H

Soil Sampling and Field Screening Methodology

Soil sampling methodology & procedures for soil sampling are as follows:

- Sampling equipment is to be decontaminated immediately prior to sampling, then decontaminated again after extraction of every individual sample.
- Industry standard field tapes, GPS, compasses and maps are to be used to identify and record each of the sample stations.
- Latex or rubber protective gloves are to be used during all soil sampling procedures.
- A hand operated auger or trowel is to be used to collect soil samples at required depths in accordance with AS 4482.1 (2005) sections 7.3.3 and 7.3.5 (a).
- A split spoon sampler can be used during deep profile sampling or the drilling of well boreholes;
- A backhoe may be used for collecting samples from excavated areas;
- Samples are to be immediately placed in a labelled (using permanent waterproof marker) sample jar.
- Samples are to be stored in a cooler with ice in accordance with AS4482.1 (2005) section 7.4.2, and transported to the Environmental Analysis Laboratory at Southern Cross University on the same day for storage and analysis.
- A dated and signed chain of custody form, listing all samples from the site including the names of investigators and samplers, is to accompany the samples to the laboratory.
- All individual samples shall be logged during sampling and observations and weather recorded along with sampler's name, date and time of each sample extraction in accordance with AS 4482.1 (2005) section 7.6.

NOTE: Samples should be delivered as soon as practicable to a NATA certified laboratory, and stored in a refrigerator (that is not used for food storage purposes) if they are not delivered to the analytical laboratory the same day that they are collected. Chain of Custody forms must be completed upon submission of the samples to the laboratory, and copies of forms must be retained by the site supervisor.

Decontamination of equipment followed the procedures outlined in AS 4482.1 (2005) section 7.5.6, and involved the following:

- Removal of excess soil with a dry scrubbing brush.
- Washing of equipment in fresh water + detergent using a clean scrubbing cloth.
- Rinsing of equipment in fresh water containing detergent using a scrubbing brush.
- Washing of equipment in fresh water.
- Rinsing of equipment in fresh water.
- Drying of equipment with a disposable cloth towel, then air-dried prior to use.

Analysis of samples to be conducted by NATA accredited Laboratory. All necessary Personal Protection Equipment shall be used by soil sampling personnel.

Soil field screening (headspace analysis) for volatile organic compounds methodology & procedures using a photo ionisation detector (PID) are as follows:

- Sampling equipment is to be decontaminated immediately prior to sampling, then decontaminated again after extraction of every individual sample.
- A hand auger or trowel should be used for collecting surface and composite samples of stockpile soils.
- A split spoon sampler can be used during deep profile sampling or the drilling of well boreholes;
- A backhoe may be used for collecting samples from excavated areas;
- Samples are placed in a glass container or plastic zip lock bag (one-half to two-thirds full);
- Sample containers should be cleaned prior to use and decontaminated between samples if they are reused;
- The container must be quickly covered with one or more sheets of aluminium foil or Teflon sheeting (approximately 2 mm thick) or an air-tight, screw-on lid or sealed using the zip lock mechanism if a bag is used;
- Prior to analysis, the sample should be allowed to sit for 5 to 10 minutes to reach ambient temperature. Samples should not be allowed to sit long enough for condensation to form in the container/bag;
- The PID probe must be inserted into a pierced hole or opening. Sample analysis is to be conducted for as long enough to respond to vapours but not long enough to draw in outside air;
- The highest reading observed within the first 10 seconds is to be recorded.;
- An ambient soil sample shall be analysed from an adjacent site to provide background levels;
- Instrument maintenance records and calibration records shall be maintained;

Where VOCs are detected using a PID, samples must be collected for chemical analysis

Appendix I

Borehole Drill Logs

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natural solutions for environmental challenges

ENVIRONMENTAL BOREHOLE BH3

PROJECT NUMBER 21299
PROJECT NAME Rouse St Tenterfield DSI
CLIENT Nutrien Harcourts
ADDRESS 148 Rouse St, Tenterfield

DRILLING DATE 30/09/2021
DRILLING COMPANY Soil tech
DRILLER Chris Seefeld
DRILLING METHOD Push tube
TOTAL DEPTH 3.3

Location North of wash down holding tank

LOGGED BY Lise Bolton-Ecoteam

COMMENTS 1.8 m from workshop wash down holding tank outside of the building

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
					SC	Concrete	no odour
	0.3	3- 0.1	Y			CLAYEY SAND: Brown sandy clay, yellow mottles, moist, low plasticity	
0.5							
	0.3	3-0.6	N				
1						CLAYEY SAND: Yellow sandy clay, wet, low plasticity	
	0.4	3-1.1	Y				dark staining, no odour
1.5							no odour
	0.4	3-1.6	N				
					CH	CLAY: Grey, moist, dense, high plasticity	
2							
	0.4	3-2.1	N				
2.5							
	0.4	3-2.6	N				
3							
	0.4	3-3.1	Y				
						Termination Depth at:3.3 m	

Disclaimer This log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 16 Oct 2021

Page 1 of 1

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natural solutions for environmental challenges

ENVIRONMENTAL BOREHOLE BH7

PROJECT NUMBER 21299
PROJECT NAME Rouse St Tenterfield DSI
CLIENT Nutrien Harcourts
ADDRESS 148 Rouse St, Tenterfield

DRILLING DATE 30/09/2021
DRILLING COMPANY Soil tech
DRILLER Chris Seefeld
DRILLING METHOD Push tube
TOTAL DEPTH 3.3

Location North of Former mechanic pits

LOGGED BY Lise Bolton-Ecoteam

COMMENTS Adjacent to the north western former mechanic pits within the workshop

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
						Concrete	no odour
						Gravel	
	0.4	7- 0.15	Y		SC	CLAYEY SAND: Brown sandy clay, yellow mottles, moist, low plasticity	
0.5							
							some gravel
1	0.3	7- 0.95	N		CL	CLAY: Grey, moist, dense, low plasticity	change soil class
	0.3	7-1.15	N			CLAY: Yellow silty clay, wet, low plasticity	standing water level at 1.2 m sample extraction difficult
1.5							
2							
	0.4	3-1.67-2.15	N				
2.5							
3							
	0.4	3-3.15	Y				
						Termination Depth at:3.3 m	

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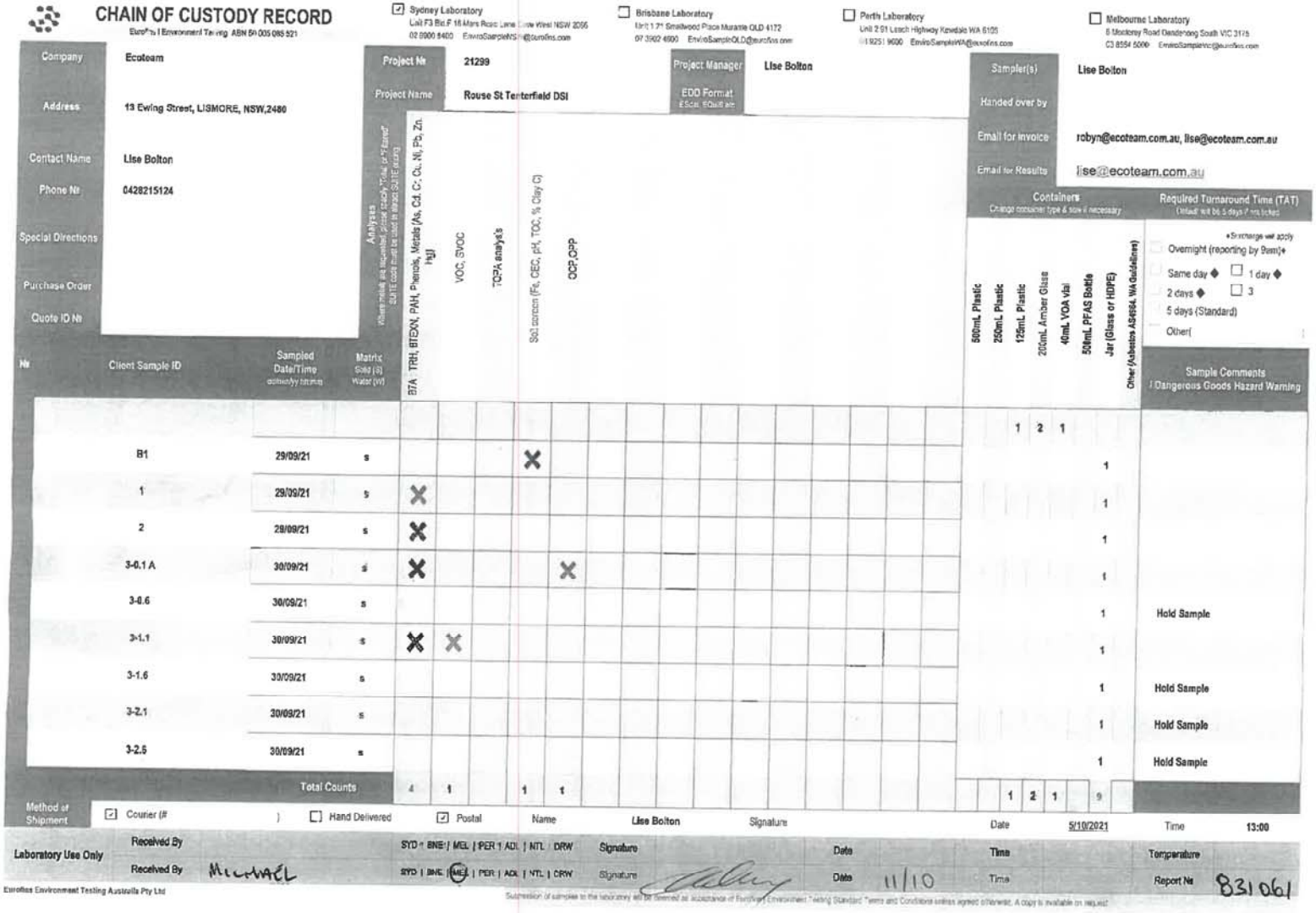
Page 1 of 1

Appendix J

Chain-of-Custody Forms



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066 — 02 9900 8400 — EnviroSamplesNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1 21 Smallwood Place Murarrie QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2 91 Leach Highway Kewdale WA 6105 — 61 8251 9600 — EnviroSamplesWA@eurofins.com

☐ Melbourne Laboratory — 6 Mackaway Road Dandenong South VIC 3175 — 03 8564 5000 — EnviroSamplesVic@eurofins.com

Company	Ecoteam	Project No	21299
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone No	0428215124	EDD Format (ESdat, EQuIS etc)	
Special Directions		Sampler(s)	Lise Bolton
Purchase Order		Handed over by	
Quote ID No		Email for invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
		Email for Results	lise@ecoteam.com.au

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE codes must be used to assess SUITE pricing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if no ticked

*Surcharge will apply

☐ Overnight (reporting by 9am)*
☐ Same day ◆ ☐ 1 day ◆
☐ 2 days ◆ ☐ 3
☐ 5 days (Standard)
☐ Other

No	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix Solid (s) Water (w)	B7A: TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TOPA analy's	Soil concen (Fe, CEC, pH, TOC, % Clay C)	OCP,OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
									1	2	1						
	B1	29/09/21	s				X								1		
	1	29/09/21	s	X											1		
	2	29/09/21	s	X											1		
	3-0.1 A	30/09/21	s	X				X							1		
	3-0.6	30/09/21	s												1		Hold Sample
	3-1.1	30/09/21	s	X	X										1		
	3-1.6	30/09/21	s												1		Hold Sample
	3-2.1	30/09/21	s												1		Hold Sample
	3-2.5	30/09/21	s												1		Hold Sample
	Total Counts			4	1		1	1		1	2	1			9		

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☑ Postal — Name: Lise Bolton — Signature: — Date: 5/10/2021 — Time: 13:00

Laboratory Use Only

Received By: — SYD | BNE | MEL | PER | ADL | NTL | DRW — Signature: — Date: — Time: — Temperature:

Received By: MICHAEL — SYD | BNE | MEL | PER | ADL | NTL | DRW — Signature: — Date: 11/10 — Time: — Report No: 831061

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
☐ Brisbane Laboratory
☐ Perth Laboratory
☐ Melbourne Laboratory 6 Monterey Road Dandenong South VIC 3175 EnviroSampleVic@eurofins.com

Company	Ecoteam
Address	13 Ewing Street, LISMORE, NSW,2480
Contact Name	Lise Bolton
Phone №	0428215124
Special Directions	
Purchase Order	
Quote ID №	
Project №	21299
Project Name	Rouse St Tenterfield DSI
Project Manager	Lise Bolton
EDD Format	
Sampler(s)	Lise Bolton
Handed over by	
Email for Invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
Email for Results	lise@ecoteam.com.au

Required Turnaround Time (TAT): ☐ Overnight (reporting by 9am)◆ ☐ Same day ◆ ☐ 1 day ◆ ☐ 2 days ◆ ☐ 3 ☐ 5 days (Standard) ☐ Other(— ◆Surcharge will apply

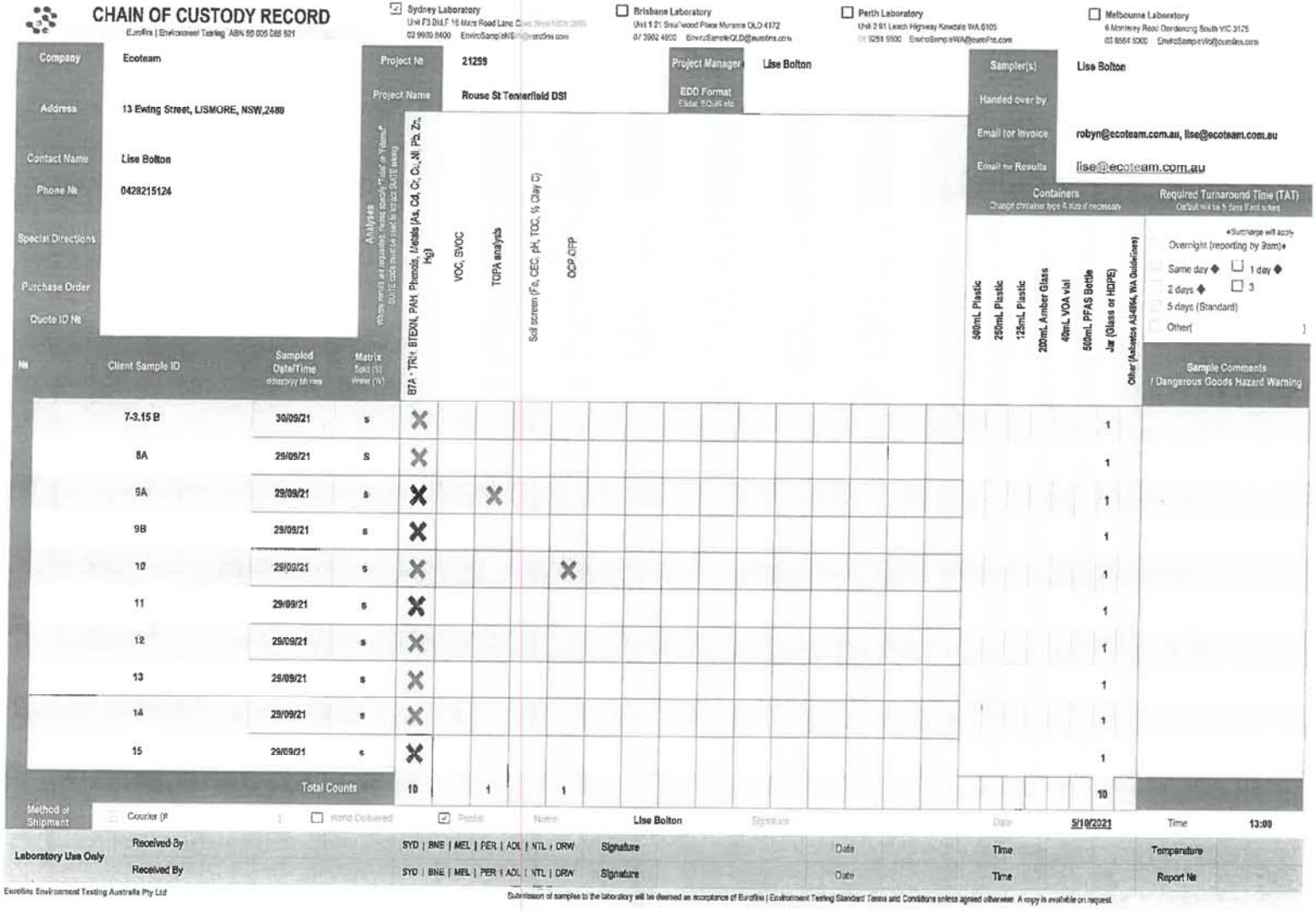
№	Client Sample ID	Sampled Date/Time	Matrix Solid (S) Water (W)	B7A : TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TOPA analysis	Soil screen (Fe, CEC, pH, TOC, % Clay C)	OCP OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
	3-3.1	30/09/21	s	X											1		
	4-0.2	29/09/21	S	X											1		
	5	29/09/21	s	X											1		
	6-0.25	29/09/21	s	X											1		
	6-0.4	29/09/21	s	X				X							1		
	7-0.15	30/09/21	s	X											1		
	7-0.95	30/09/21	s												1		Hold Sample
	7-1.15	30/09/21	s												1		Hold Sample
	7-2.15	30/09/21	s												1		Hold Sample
	7-3.15 A	30/09/21	s	X											1		
			Total Counts	7				1							10		

Method of Shipment: ☑ Courier (# ☐ Hand Delivered ☑ Postal Name Lise Bolton Signature Date 5/10/2021 Time 13:00

Laboratory Use Only						
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066 — 02 9900 8400 — EnviroSampleNS@eurofins.com

☐ Brisbane Laboratory — Unit 1 21 Smallwood Place Murarrie QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2 91 Leach Highway Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 6 Monterey Road Dandenong South VIC 3175 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Ecoteam	Project №	21299
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone №	0428215124	EDD Format	
Special Directions		Sampler(s)	Lise Bolton
Purchase Order		Handed over by	
Quote ID №		Email for Invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
		Email for Results	lise@ecoteam.com.au

Analyses — Where metals are required, please specify "Total" or "Filtered". SUITE codes must be used to ensure SUITE testing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if not ticked

*Surcharge will apply

Overnight (reporting by 9am)* ☐ Same day ◆ ☐ 1 day ◆ ☐ 2 days ◆ ☐ 3 ☐ 5 days (Standard) ☐ Other( )

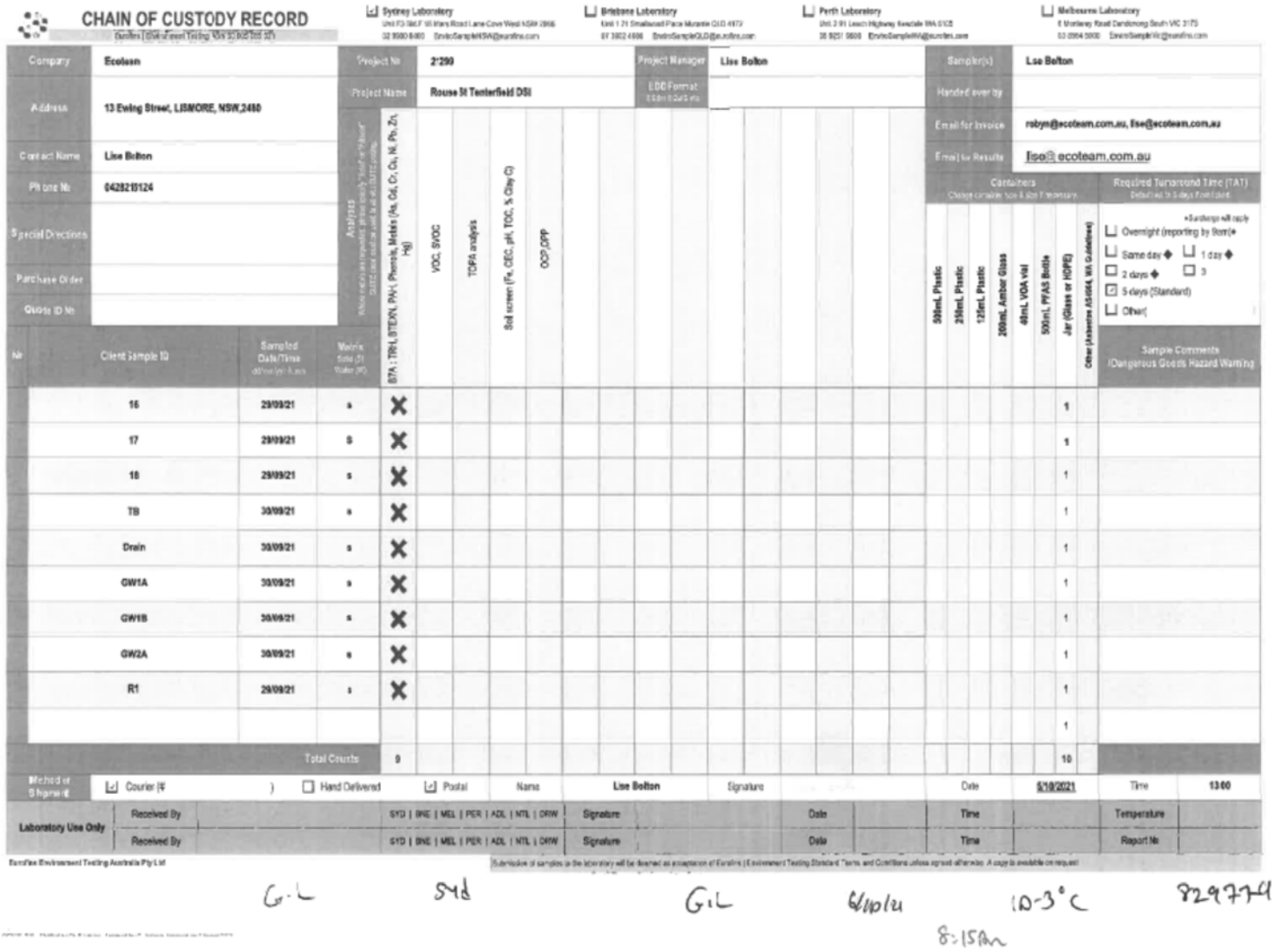
№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Soil (S) Water (W)	BTEX - TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TOPA analysis	Soil screen (Fe, CEC, pH, TOC, % Clay C)	OCP, OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
	7-3.15 B	30/09/21	s	X											1		
	8A	29/09/21	S	X											1		
	9A	29/09/21	s	X		X									1		
	9B	29/09/21	s	X											1		
	10	29/09/21	s	X				X							1		
	11	29/09/21	s	X											1		
	12	29/09/21	s	X											1		
	13	29/09/21	s	X											1		
	14	29/09/21	s	X											1		
	15	29/09/21	s	X											1		
	Total Counts			10		1		1							10		

Method of Shipment: Courier (#) ☐ Hand Delivered ☑ Postal — Name: Lise Bolton — Signature: — Date: 5/10/2021 — Time: 13:00

Laboratory Use Only						
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature	
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №	

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.



CHAIN OF CUSTODY RECORD

Sydney Laboratory | Brisbane Laboratory | Perth Laboratory | Melbourne Laboratory

Company	Ecoteam	Project No	2'290
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone No	0428215124	Sampler(s)	Lse Bolton
Special Directions		Handed over by	
Purchase Order		Email for Invoice	robyn@ecoteam.com.au, lse@ecoteam.com.au
Quote ID No		Email for Results	lse@ecoteam.com.au

Analytes: BTA ; TRH, BTEXN, PAH (Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)); VOC, SVOC; TOPA analysis; Soil screen (Fe, CEC, pH, TOC, % Clay C); OCP,OPP

Containers: 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

Required Turnaround Time (TAT): Overnight (reporting by 9am)♦; Same day ♦; 1 day ♦; 2 days ♦; 3; 5 days (Standard); Other

№	Client Sample ID	Sampled Date/Time	Matrix Soil (S) Water (W)	BTA	Jar (Glass or HDPE)	Sample Comments /Dangerous Goods Hazard Warning
	16	29/09/21	s	X	1	
	17	29/09/21	s	X	1	
	18	29/09/21	s	X	1	
	TB	30/09/21	s	X	1	
	Drain	30/09/21	s	X	1	
	GW1A	30/09/21	s	X	1	
	GW1B	30/09/21	s	X	1	
	GW2A	30/09/21	s	X	1	
	R1	29/09/21	s	X	1	
					1	
		Total Counts		9	10	

Method of Shipment: ☑ Courier ( ) ☐ Hand Delivered ☑ Postal | Name: Lise Bolton | Signature | Date: 5/10/2021 | Time: 1300

Laboratory Use Only: Received By | SYD | BNE | MEL | PER | ADL | NTL | DRW | Signature | Date | Time | Temperature

Received By | SYD | BNE | MEL | PER | ADL | NTL | DRW | Signature | Date | Time | Report №

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request

G.L SYd G.L 6/10/21 10-3°C 829774 8:15Am

CHAIN OF CUSTODY FORM - Client

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ENVIROLAB GROUP
National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
✆ 02 9910 6200 | ✉ sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt, Myaree, WA 6154
✆ 08 9317 2505 | ✉ lab@mpl.com.au

Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
✆ 03 9763 2500 | ✉ melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
✆ 08 7087 6800 | ✉ adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
✆ 07 3266 9532 | ✉ brisbane@envirolab.com.au

Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820
✆ 08 8967 1201 | ✉ darwin@envirolab.com.au

Client: Ecotechnology Trading as Ecoteam	Client Project Name/Number/Site etc (ie report title): Tenterfield DSI -21299
Contact Person: Robyn Mirigliani	
Project Mgr: Lise Bolton	PO No.:
Sampler: Lise Bolton	Envirolab Quote No. :
Address: 13 Ewing Street Lismore NSW 2480	Date results required: Standard Or choose: ~~standard / same~~ day / 1 day / 2 day / 3 day *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 66215123 Mob: 0428215124	Additional report format: esdat / equis /
Email: lise@ecoteam.com.au	Lab Comments: Testing - Comb 4- TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)

Sample information					PO No.:															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Comb 4 (metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg))															Provide as much information about the sample as you can
1	3-0.1B		30/09/2021	Soil	X															Jar Soil
2	8-B		29/09/2021	Soil	X															Jar Soil
3	GW2B		30/09/2021	Water	X															4 x water bottles
~~4~~																				

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Ecoteam	Received by (Company): EC SYD	*Lab Use Only*	
Print Name: Lise Bolton	Print Name: TJ HOW	Job number: 279716	Cooling: Ice / Ice pack / None
Date & Time: 5/10/2021	Date & Time: 06.10.2021 09.15	Temperature: 11	Security seal: Intact / Broken / None
Signature: Lise Bolton	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

Appendix K

Analytical Results and Laboratory QA

Ecoteam
13 Ewing Street
Lismore
NSW 2480

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Lise Bolton**

Report **831061-S**
Project name ROUSE ST TENTERFIELD DSI
Project ID 21299
Received Date Oct 07, 2021

Client Sample ID			**B1**	**1**	**2**	**3-0.1 A**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M21-Oc20247**	**M21-Oc20248**	**M21-Oc20249**	**M21-Oc20250**
Date Sampled			**Sep 29, 2021**	**Sep 29, 2021**	**Sep 29, 2021**	**Sep 30, 2021**
Test/Reference	LOR	Unit				
% Clay	1	%	5.0	-	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	18	-	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	5.9	-	-	-
Total Organic Carbon	0.1	%	1.8	-	-	-
% Moisture	1	%	6.7	11	5.9	15
Heavy Metals						
Arsenic	2	mg/kg	-	3.3	11	6.7
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	0.4
Chromium	5	mg/kg	-	8.0	20	13
Copper	5	mg/kg	-	18	17	16
Iron	20	mg/kg	8500	-	-	-
Lead	5	mg/kg	-	230	150	160
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	< 5	8.7	< 5
Zinc	5	mg/kg	-	170	88	86
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	6.2	-	-	-
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	97	74	< 50
TRH C29-C36	50	mg/kg	-	160	150	75
TRH C10-C36 (Total)	50	mg/kg	-	257	224	75
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	240	210	120
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	240	210	120

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	86	82	74
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	66	62	66
p-Terphenyl-d14 (surr.)	1	%	-	78	78	85
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	-	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	-	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	-	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	-	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	-	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	-	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	-	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	-	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
4-Nitrophenol	5	mg/kg	-	< 5	< 5	< 5
Dinoseb	20	mg/kg	-	< 20	< 20	< 20
Phenol	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	-	120	56	53
Total Non-Halogenated Phenol*	20	mg/kg	-	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	93
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	84
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	-	< 0.2
Bolstar	0.2	mg/kg	-	-	-	< 0.2
Chlorfenvinphos	0.2	mg/kg	-	-	-	< 0.2
Chlorpyrifos	0.2	mg/kg	-	-	-	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	-	-	-	< 0.2
Coumaphos	2	mg/kg	-	-	-	< 2
Demeton-S	0.2	mg/kg	-	-	-	< 0.2
Demeton-O	0.2	mg/kg	-	-	-	< 0.2
Diazinon	0.2	mg/kg	-	-	-	< 0.2
Dichlorvos	0.2	mg/kg	-	-	-	< 0.2
Dimethoate	0.2	mg/kg	-	-	-	< 0.2
Disulfoton	0.2	mg/kg	-	-	-	< 0.2
EPN	0.2	mg/kg	-	-	-	< 0.2
Ethion	0.2	mg/kg	-	-	-	< 0.2
Ethoprop	0.2	mg/kg	-	-	-	< 0.2

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Ethyl parathion	0.2	mg/kg	-	-	-	< 0.2
Fenitrothion	0.2	mg/kg	-	-	-	< 0.2
Fensulfothion	0.2	mg/kg	-	-	-	< 0.2
Fenthion	0.2	mg/kg	-	-	-	< 0.2
Malathion	0.2	mg/kg	-	-	-	< 0.2
Merphos	0.2	mg/kg	-	-	-	< 0.2
Methyl parathion	0.2	mg/kg	-	-	-	< 0.2
Mevinphos	0.2	mg/kg	-	-	-	< 0.2
Monocrotophos	2	mg/kg	-	-	-	< 2
Naled	0.2	mg/kg	-	-	-	< 0.2
Omethoate	2	mg/kg	-	-	-	< 2
Phorate	0.2	mg/kg	-	-	-	< 0.2
Pirimiphos-methyl	0.2	mg/kg	-	-	-	< 0.2
Pyrazophos	0.2	mg/kg	-	-	-	< 0.2
Ronnel	0.2	mg/kg	-	-	-	< 0.2
Terbufos	0.2	mg/kg	-	-	-	< 0.2
Tetrachlorvinphos	0.2	mg/kg	-	-	-	< 0.2
Tokuthion	0.2	mg/kg	-	-	-	< 0.2
Trichloronate	0.2	mg/kg	-	-	-	< 0.2
Triphenylphosphate (surr.)	1	%	-	-	-	94

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	21	13	32	12
Heavy Metals						
Arsenic	2	mg/kg	2.3	< 2	5.7	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	7.3	17	< 5
Copper	5	mg/kg	100	< 5	9.3	< 5
Lead	5	mg/kg	38	5.7	7.1	9.6
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	7.7	< 5
Zinc	5	mg/kg	130	39	48	17
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	83	70	68	63
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	76	70	59	52
p-Terphenyl-d14 (surr.)	1	%	98	103	95	79
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	72	101	94	85
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
Total MAH*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	83	-	-	-
Toluene-d8 (surr.)	1	%	81	-	-	-
Semivolatile Organics						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	-	-
1-Chloronaphthalene	0.5	mg/kg	< 0.5	-	-	-
1-Naphthylamine	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Chloronaphthalene	0.5	mg/kg	< 0.5	-	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2-Fluorobiphenyl (surr.)	1	%	76	-	-	-
2-Methylnaphthalene	0.5	mg/kg	< 0.5	-	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	-	-
2-Naphthylamine	0.5	mg/kg	< 0.5	-	-	-
2-Nitroaniline	0.5	mg/kg	< 0.5	-	-	-
2-Nitrophenol	1.0	mg/kg	< 1	-	-	-
2-Picoline	0.5	mg/kg	< 0.5	-	-	-
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	-	-	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dinitrophenol	5	mg/kg	< 5	-	-	-
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Semivolatile Organics						
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.4.6-Tribromophenol (surr.)	1	%	98	-	-	-
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	-	-
3-Methylcholanthrene	0.5	mg/kg	< 0.5	-	-	-
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	-	-	-
4-Aminobiphenyl	0.5	mg/kg	< 0.5	-	-	-
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	-	-
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	-	-	-
4-Nitrophenol	5	mg/kg	< 5	-	-	-
4.4'-DDD	0.5	mg/kg	< 0.5	-	-	-
4.4'-DDE	0.5	mg/kg	< 0.5	-	-	-
4.4'-DDT	0.5	mg/kg	< 0.5	-	-	-
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
a-HCH	0.5	mg/kg	< 0.5	-	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Acetophenone	0.5	mg/kg	< 0.5	-	-	-
Aldrin	0.5	mg/kg	< 0.5	-	-	-
Aniline	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
b-HCH	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Benzyl chloride	0.5	mg/kg	< 0.5	-	-	-
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	-	-	-
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	-	-	-
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	-	-	-
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
d-HCH	0.5	mg/kg	< 0.5	-	-	-
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	-	-	-
Dibenzofuran	0.5	mg/kg	< 0.5	-	-	-
Dieldrin	0.5	mg/kg	< 0.5	-	-	-
Diethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dimethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	-	-	-
Diphenylamine	0.5	mg/kg	< 0.5	-	-	-
Endosulfan I	0.5	mg/kg	< 0.5	-	-	-
Endosulfan II	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Semivolatile Organics						
Endosulfan sulphate	0.5	mg/kg	< 0.5	-	-	-
Endrin	0.5	mg/kg	< 0.5	-	-	-
Endrin aldehyde	0.5	mg/kg	< 0.5	-	-	-
Endrin ketone	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
g-HCH (Lindane)	0.5	mg/kg	< 0.5	-	-	-
Heptachlor	0.5	mg/kg	< 0.5	-	-	-
Heptachlor epoxide	0.5	mg/kg	< 0.5	-	-	-
Hexachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Hexachlorobutadiene	0.5	mg/kg	< 0.5	-	-	-
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	-	-	-
Hexachloroethane	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Methoxychlor	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Nitrobenzene	0.5	mg/kg	< 0.5	-	-	-
Nitrobenzene-d5 (surr.)	1	%	82	-	-	-
Pentachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
Phenol-d6 (surr.)	1	%	72	-	-	-
Pronamide	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Trifluralin	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	12	9.0	23	18
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	6.0	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.5	< 5	16	17
Copper	5	mg/kg	7.2	< 5	< 5	< 5
Lead	5	mg/kg	310	32	12	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	180	9.8	37	36

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	270	440	< 50	< 50
TRH C29-C36	50	mg/kg	470	670	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	740	1110	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	660	940	< 100	< 100
TRH >C34-C40	100	mg/kg	200	300	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	860	1240	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	87	146	111
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	64	64	113	111
p-Terphenyl-d14 (surr.)	1	%	91	89	102	98
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	88	88	111	110
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-HCH	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-HCH	0.05	mg/kg	-	< 0.05	-	-
d-HCH	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	0.5	mg/kg	-	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	116	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	95	-	-

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Bolstar	0.2	mg/kg	-	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	-	< 0.2	-	-
Coumaphos	2	mg/kg	-	< 2	-	-
Demeton-S	0.2	mg/kg	-	< 0.2	-	-
Demeton-O	0.2	mg/kg	-	< 0.2	-	-
Diazinon	0.2	mg/kg	-	< 0.2	-	-
Dichlorvos	0.2	mg/kg	-	< 0.2	-	-
Dimethoate	0.2	mg/kg	-	< 0.2	-	-
Disulfoton	0.2	mg/kg	-	< 0.2	-	-
EPN	0.2	mg/kg	-	< 0.2	-	-
Ethion	0.2	mg/kg	-	< 0.2	-	-
Ethoprop	0.2	mg/kg	-	< 0.2	-	-
Ethyl parathion	0.2	mg/kg	-	< 0.2	-	-
Fenitrothion	0.2	mg/kg	-	< 0.2	-	-
Fensulfothion	0.2	mg/kg	-	< 0.2	-	-
Fenthion	0.2	mg/kg	-	< 0.2	-	-
Malathion	0.2	mg/kg	-	< 0.2	-	-
Merphos	0.2	mg/kg	-	< 0.2	-	-
Methyl parathion	0.2	mg/kg	-	< 0.2	-	-
Mevinphos	0.2	mg/kg	-	< 0.2	-	-
Monocrotophos	2	mg/kg	-	< 2	-	-
Naled	0.2	mg/kg	-	< 0.2	-	-
Omethoate	2	mg/kg	-	< 2	-	-
Phorate	0.2	mg/kg	-	< 0.2	-	-
Pirimiphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Pyrazophos	0.2	mg/kg	-	< 0.2	-	-
Ronnel	0.2	mg/kg	-	< 0.2	-	-
Terbufos	0.2	mg/kg	-	< 0.2	-	-
Tetrachlorvinphos	0.2	mg/kg	-	< 0.2	-	-
Tokuthion	0.2	mg/kg	-	< 0.2	-	-
Trichloronate	0.2	mg/kg	-	< 0.2	-	-
Triphenylphosphate (surr.)	1	%	-	124	-	-

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	12	9.8	16	21
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.6	4.4	4.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	13	13	11
Copper	5	mg/kg	< 5	5.0	9.4	8.5

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	5	mg/kg	8.5	9.7	43	43
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	6.0	< 5	< 5
Zinc	5	mg/kg	23	49	150	140
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	65	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	110	58
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	175	58
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	160	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	160	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	106	102	96
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	110	108	114	107
p-Terphenyl-d14 (surr.)	1	%	95	92	100	106

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	103	103	111	114
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	17	15	7.7	5.8
Heavy Metals						
Arsenic	2	mg/kg	3.5	< 2	3.0	< 2
Cadmium	0.4	mg/kg	1.0	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	< 5	8.1	< 5
Copper	5	mg/kg	23	8.6	7.0	< 5
Lead	5	mg/kg	150	52	51	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	1.3	< 0.1
Nickel	5	mg/kg	6.8	< 5	< 5	< 5
Zinc	5	mg/kg	180	110	65	26
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	62	54	< 50	< 50
TRH C29-C36	50	mg/kg	99	60	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	161	114	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	140	100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	140	100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	94	100	115
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	114	107	103	115
p-Terphenyl-d14 (surr.)	1	%	118	111	92	112
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	117	114	109	118
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-HCH	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	135	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	106	-	-	-
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	-	-	-
Bolstar	0.2	mg/kg	< 0.2	-	-	-
Chlorfenvinphos	0.2	mg/kg	< 0.2	-	-	-
Chlorpyrifos	0.2	mg/kg	< 0.2	-	-	-
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	-	-	-
Coumaphos	2	mg/kg	< 2	-	-	-
Demeton-S	0.2	mg/kg	< 0.2	-	-	-

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Demeton-O	0.2	mg/kg	< 0.2	-	-	-
Diazinon	0.2	mg/kg	< 0.2	-	-	-
Dichlorvos	0.2	mg/kg	< 0.2	-	-	-
Dimethoate	0.2	mg/kg	< 0.2	-	-	-
Disulfoton	0.2	mg/kg	< 0.2	-	-	-
EPN	0.2	mg/kg	< 0.2	-	-	-
Ethion	0.2	mg/kg	< 0.2	-	-	-
Ethoprop	0.2	mg/kg	< 0.2	-	-	-
Ethyl parathion	0.2	mg/kg	< 0.2	-	-	-
Fenitrothion	0.2	mg/kg	< 0.2	-	-	-
Fensulfothion	0.2	mg/kg	< 0.2	-	-	-
Fenthion	0.2	mg/kg	< 0.2	-	-	-
Malathion	0.2	mg/kg	< 0.2	-	-	-
Merphos	0.2	mg/kg	< 0.2	-	-	-
Methyl parathion	0.2	mg/kg	< 0.2	-	-	-
Mevinphos	0.2	mg/kg	< 0.2	-	-	-
Monocrotophos	2	mg/kg	< 2	-	-	-
Naled	0.2	mg/kg	< 0.2	-	-	-
Omethoate	2	mg/kg	< 2	-	-	-
Phorate	0.2	mg/kg	< 0.2	-	-	-
Pirimiphos-methyl	0.2	mg/kg	< 0.2	-	-	-
Pyrazophos	0.2	mg/kg	< 0.2	-	-	-
Ronnel	0.2	mg/kg	< 0.2	-	-	-
Terbufos	0.2	mg/kg	< 0.2	-	-	-
Tetrachlorvinphos	0.2	mg/kg	< 0.2	-	-	-
Tokuthion	0.2	mg/kg	< 0.2	-	-	-
Trichloronate	0.2	mg/kg	< 0.2	-	-	-
Triphenylphosphate (surr.)	1	%	119	-	-	-

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	11	4.9	8.7	6.5
Heavy Metals						
Arsenic	2	mg/kg	4.2	2.2	3.2	3.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	10	17	5.4
Copper	5	mg/kg	< 5	< 5	12	< 5
Lead	5	mg/kg	20	6.6	89	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.6	< 5	9.4
Zinc	5	mg/kg	40	32	140	14

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	102	102	105	105
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	110	111	110	107
p-Terphenyl-d14 (surr.)	1	%	108	107	104	98
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	113	111	107	108
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			18
Sample Matrix			Soil
Eurofins Sample No.			M21-Oc24740
Date Sampled			Sep 29, 2021
Test/Reference	LOR	Unit	
% Moisture	1	%	6.9
Heavy Metals			
Arsenic	2	mg/kg	2.6
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	5.6
Copper	5	mg/kg	< 5
Lead	5	mg/kg	5.6
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	16
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100

Client Sample ID			18
Sample Matrix			Soil
Eurofins Sample No.			M21-Oc24740
Date Sampled			Sep 29, 2021
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	104
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	106
p-Terphenyl-d14 (surr.)	1	%	103
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5

Client Sample ID			18
Sample Matrix			**Soil**
Eurofins Sample No.			**M21-Oc24740**
Date Sampled			**Sep 29, 2021**
Test/Reference	LOR	Unit	
Phenols (non-Halogenated)			
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	106
Total Non-Halogenated Phenol*	20	mg/kg	< 20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
% Clay	Brisbane	Oct 18, 2021	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-INO-4060 Total Organic Carbon in water and soil			
Heavy Metals	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
% Moisture	Sydney	Oct 12, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Metals M8	Sydney	Oct 14, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (Halogenated)	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)			
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Volatile Organics	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Semivolatile Organics	Melbourne	Oct 13, 2021	14 Days
- Method: USEPA SW 846 8270			

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Lismore
NSW 2480

Project Name: ROUSE ST RENTERFIELD DSI
Project ID: 21299

Order No.:
Report #: 831061
Phone: 0428 215 124
Fax:

Received: Oct 7, 2021 4:29 PM
Due: Oct 14, 2021
Priority: 5 Day
Contact Name: Lise Bolton

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	CANCELLED	HOLD	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Suite B14: OCP/OPP	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7A	Eurofins Suite B7A	Eurofins Suite SVV: SVOC/VOC
Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	B1	Sep 29, 2021		Soil	M21-Oc20247	X				X	X	X			X		X			
2	1	Sep 29, 2021		Soil	M21-Oc20248										X			X		
3	2	Sep 29, 2021		Soil	M21-Oc20249										X			X		
4	3-0.1 A	Sep 30, 2021		Soil	M21-Oc20250								X		X			X		
5	3-1.1	Sep 30, 2021		Soil	M21-Oc20251										X			X		X
6	3-3.1	Sep 30, 2021		Soil	M21-Oc20252										X			X		
7	4-0.2	Sep 29, 2021		Soil	M21-Oc20253										X			X		
8	5	Sep 29, 2021		Soil	M21-Oc20254										X			X		
9	6-0.25	Sep 29, 2021		Soil	M21-Oc20255										X			X		

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
10	6-0.4	Sep 29, 2021		Soil	M21-Oc20256								X		X			X		
11	3-0.6	Sep 29, 2021		Soil	M21-Oc20257			X												
12	3-1.6	Sep 29, 2021		Soil	M21-Oc20258			X												
13	3-2.1	Sep 30, 2021		Soil	M21-Oc20259			X												
14	3-2.6	Sep 29, 2021		Soil	M21-Oc20260			X												
15	7-0.15	Sep 30, 2021		Soil	M21-Oc24723											X			X	
16	7-0.95	Sep 30, 2021		Soil	M21-Oc24724				X											
17	7-1.15	Sep 30, 2021		Soil	M21-Oc24725				X											
18	7-2.15	Sep 30, 2021		Soil	M21-Oc24726				X											
19	7-3.15 A	Sep 30, 2021		Soil	M21-Oc24727											X			X	
20	7-3.15 B	Sep 30, 2021		Soil	M21-Oc24728											X			X	

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
21	8A	Sep 29, 2021		Soil	M21-Oc24729											X			X	
22	9A	Sep 29, 2021		Soil	M21-Oc24730											X			X	
23	9B	Sep 29, 2021		Soil	M21-Oc24731											X			X	
24	10	Sep 29, 2021		Soil	M21-Oc24732									X		X			X	
25	11	Sep 29, 2021		Soil	M21-Oc24733											X			X	
26	12	Sep 29, 2021		Soil	M21-Oc24734											X			X	
27	13	Sep 29, 2021		Soil	M21-Oc24735											X			X	
28	14	Sep 29, 2021		Soil	M21-Oc24736											X			X	
29	15	Sep 29, 2021		Soil	M21-Oc24737											X			X	
30	16	Sep 29, 2021		Soil	M21-Oc24738											X			X	
31	17	Sep 29, 2021		Soil	M21-Oc24739											X			X	

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
32	18	Sep 29, 2021		Soil	M21-Oc24740											X			X	
33	TB	Sep 30, 2021		Soil	M21-Oc24741		X													
34	DRAIN	Sep 30, 2021		Soil	M21-Oc24742		X													
35	GW1A	Sep 30, 2021		Soil	M21-Oc24743		X													
36	GW1B	Sep 30, 2021		Soil	M21-Oc24744		X													
37	GW2A	Sep 30, 2021		Soil	M21-Oc24745		X													
38	R1	Sep 29, 2021		Soil	M21-Oc24746		X													
Test Counts						1	6	7	7	1	1	1	3	3	25	25	1	24	24	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Total Non-Halogenated Phenol*	mg/kg	< 0			20	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Volatile Organics							
Benzene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
LCS - % Recovery							
Total Organic Carbon	%	96			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	94			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	98			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	100			80-120	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	100			80-120	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	81			70-130	Pass	
TRH C10-C14	%	85			70-130	Pass	
Naphthalene	%	107			70-130	Pass	
TRH C6-C10	%	79			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
BTEX							
Benzene	%	85			70-130	Pass	
Toluene	%	76			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	79			70-130	Pass	
o-Xylene	%	111			70-130	Pass	
Xylenes - Total*	%	79			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	112			70-130	Pass	
Anthracene	%	89			70-130	Pass	
Benz(a)anthracene	%	98			70-130	Pass	
Benzo(a)pyrene	%	114			70-130	Pass	
Benzo(b&j)fluoranthene	%	98			70-130	Pass	
Benzo(g.h.i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	100			70-130	Pass	
Chrysene	%	98			70-130	Pass	
Dibenz(a.h)anthracene	%	88			70-130	Pass	
Fluoranthene	%	90			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	87			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	98			70-130	Pass	
Pyrene	%	87			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	99			25-140	Pass	
2.4-Dichlorophenol	%	111			25-140	Pass	
2.4.5-Trichlorophenol	%	91			25-140	Pass	
2.4.6-Trichlorophenol	%	118			25-140	Pass	
2.6-Dichlorophenol	%	109			25-140	Pass	
4-Chloro-3-methylphenol	%	118			25-140	Pass	
Tetrachlorophenols - Total	%	99			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2.4-Dimethylphenol	%	107			25-140	Pass	
2-Methylphenol (o-Cresol)	%	110			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	115			25-140	Pass	
4-Nitrophenol	%	126			25-140	Pass	
Phenol	%	101			25-140	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	86			70-130	Pass	
4.4'-DDD	%	126			70-130	Pass	
4.4'-DDE	%	80			70-130	Pass	
4.4'-DDT	%	106			70-130	Pass	
a-HCH	%	88			70-130	Pass	
Aldrin	%	79			70-130	Pass	
b-HCH	%	94			70-130	Pass	
d-HCH	%	90			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	91			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	%	72			70-130	Pass	
Endrin	%	121			70-130	Pass	
Endrin aldehyde	%	96			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	
g-HCH (Lindane)	%	89			70-130	Pass	
Heptachlor	%	98			70-130	Pass	
Heptachlor epoxide	%	99			70-130	Pass	
Hexachlorobenzene	%	80			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	94			70-130	Pass	
Dimethoate	%	103			70-130	Pass	
Fenitrothion	%	127			70-130	Pass	
Mevinphos	%	127			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
Benzene	%	93			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
m&p-Xylenes	%	112			70-130	Pass	
Toluene	%	98			70-130	Pass	
Xylenes - Total*	%	112			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Oc20248	CP	%	79			70-130	Pass	
Naphthalene	M21-Oc20248	CP	%	94			70-130	Pass	
TRH C6-C10	M21-Oc20248	CP	%	80			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M21-Oc20248	CP	%	80			70-130	Pass	
Toluene	M21-Oc20248	CP	%	79			70-130	Pass	
Ethylbenzene	M21-Oc20248	CP	%	80			70-130	Pass	
m&p-Xylenes	M21-Oc20248	CP	%	88			70-130	Pass	
o-Xylene	M21-Oc20248	CP	%	86			70-130	Pass	
Xylenes - Total*	M21-Oc20248	CP	%	87			70-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
Total cresols*	M21-Oc24053	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Oc20256	CP	%	105			70-130	Pass	
4.4'-DDD	M21-Oc20256	CP	%	105			70-130	Pass	
4.4'-DDE	M21-Oc20256	CP	%	127			70-130	Pass	
4.4'-DDT	M21-Oc20256	CP	%	100			70-130	Pass	
a-HCH	M21-Oc20256	CP	%	102			70-130	Pass	
Aldrin	M21-Oc20256	CP	%	78			70-130	Pass	
b-HCH	M21-Oc20256	CP	%	111			70-130	Pass	
d-HCH	M21-Oc20256	CP	%	91			70-130	Pass	
Dieldrin	M21-Oc20256	CP	%	101			70-130	Pass	
Endosulfan I	M21-Oc20256	CP	%	108			70-130	Pass	
Endosulfan II	M21-Oc20256	CP	%	117			70-130	Pass	
Endosulfan sulphate	M21-Oc20256	CP	%	128			70-130	Pass	
Endrin	M21-Oc20256	CP	%	90			70-130	Pass	
Endrin aldehyde	M21-Oc20256	CP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	M21-Oc20256	CP	%	92			70-130	Pass	
g-HCH (Lindane)	M21-Oc20256	CP	%	107			70-130	Pass	
Heptachlor	M21-Oc20256	CP	%	104			70-130	Pass	
Heptachlor epoxide	M21-Oc20256	CP	%	115			70-130	Pass	
Hexachlorobenzene	M21-Oc20256	CP	%	108			70-130	Pass	
Methoxychlor	M21-Oc20256	CP	%	106			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
Hexachlorobenzene	M21-Oc20256	CP	%	108			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S21-Oc17857	NCP	%	85			75-125	Pass	
Zinc	S21-Oc17857	NCP	%	88			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Oc20212	NCP	%	102			70-130	Pass	
Acenaphthylene	S21-Oc20212	NCP	%	111			70-130	Pass	
Anthracene	S21-Oc20212	NCP	%	107			70-130	Pass	
Benz(a)anthracene	S21-Oc20212	NCP	%	101			70-130	Pass	
Benzo(a)pyrene	S21-Oc20212	NCP	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Oc20212	NCP	%	96			70-130	Pass	
Benzo(g.h.i)perylene	S21-Oc20212	NCP	%	87			70-130	Pass	
Benzo(k)fluoranthene	S21-Oc20212	NCP	%	113			70-130	Pass	
Chrysene	S21-Oc20212	NCP	%	103			70-130	Pass	
Dibenz(a.h)anthracene	S21-Oc20212	NCP	%	89			70-130	Pass	
Fluoranthene	S21-Oc20212	NCP	%	104			70-130	Pass	
Fluorene	S21-Oc20212	NCP	%	104			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Oc20212	NCP	%	91			70-130	Pass	
Naphthalene	S21-Oc20212	NCP	%	100			70-130	Pass	
Phenanthrene	S21-Oc20212	NCP	%	95			70-130	Pass	
Pyrene	S21-Oc20212	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Oc24731	CP	%	91			70-130	Pass	
Naphthalene	M21-Oc24731	CP	%	101			70-130	Pass	
TRH C6-C10	M21-Oc24731	CP	%	93			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M21-Oc24731	CP	%	84			70-130	Pass	
Toluene	M21-Oc24731	CP	%	91			70-130	Pass	
Ethylbenzene	M21-Oc24731	CP	%	97			70-130	Pass	
m&p-Xylenes	M21-Oc24731	CP	%	101			70-130	Pass	
o-Xylene	M21-Oc24731	CP	%	98			70-130	Pass	
Xylenes - Total*	M21-Oc24731	CP	%	100			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Oc24732	CP	%	89			75-125	Pass	
Cadmium	M21-Oc24732	CP	%	96			75-125	Pass	
Chromium	M21-Oc24732	CP	%	89			75-125	Pass	
Copper	M21-Oc24732	CP	%	104			75-125	Pass	
Mercury	M21-Oc24732	CP	%	104			75-125	Pass	
Nickel	M21-Oc24732	CP	%	93			75-125	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Diazinon	S21-Oc23556	NCP	%	82			70-130	Pass	
Dimethoate	S21-Oc23556	NCP	%	94			70-130	Pass	
Fenitrothion	S21-Oc23556	NCP	%	128			70-130	Pass	
Mevinphos	S21-Oc23556	NCP	%	122			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	M21-Oc24734	CP	%	72			70-130	Pass	
TRH >C10-C16	M21-Oc24734	CP	%	72			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	B21-Oc21885	NCP	uS/cm	90	110	16	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M21-Oc20815	NCP	pH Units	6.9	6.9	pass	30%	Pass	
Total Organic Carbon	N21-Oc08789	NCP	%	1.0	1.1	11	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron	M21-Oc14542	NCP	mg/kg	15000	15000	<1	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	N21-Oc08822	NCP	meq/100g	9.8	9.5	2.0	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Total cresols*	M21-Oc27407	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Carbon Tetrachloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1-Chloronaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Naphthylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Picoline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M21-Oc21078	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dinitrotoluene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3-Methylcholanthrene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDD	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
b-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Oc20256	CP	%	9.0	9.0	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Oc24730	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M21-Oc24730	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Oc24730	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M21-Oc24730	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M21-Oc24730	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Oc24731	CP	mg/kg	4.1	3.7	9.0	30%	Pass	
Cadmium	M21-Oc24731	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Oc24731	CP	mg/kg	11	10	8.0	30%	Pass	
Copper	M21-Oc24731	CP	mg/kg	8.5	7.3	16	30%	Pass	
Lead	M21-Oc24731	CP	mg/kg	43	30	35	30%	Fail	Q15
Mercury	M21-Oc24731	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	M21-Oc24731	CP	mg/kg	140	110	29	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Oc24731	CP	mg/kg	< 50	57	13	30%	Pass	
TRH C29-C36	M21-Oc24731	CP	mg/kg	58	73	23	30%	Pass	
TRH >C10-C16	M21-Oc24731	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Oc24731	CP	mg/kg	< 100	110	18	30%	Pass	
TRH >C34-C40	M21-Oc24731	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M21-Oc24731	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M21-Oc24731	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Oc24731	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Dinoseb	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Oc24732	CP	%	17	17	2.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Oc20268	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toxaphene	S21-Oc20268	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bolstar	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorfenvinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Coumaphos	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Demeton-S	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Demeton-O	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diazinon	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
EPN	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethoprop	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethyl parathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenitrothion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Merphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Naled	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Omethoate	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Phorate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pirimiphos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrazophos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Terbufos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachlorvinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tokuthion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Oc24733	CP	mg/kg	< 2	2.0	5.0	30%	Pass	
Cadmium	M21-Oc24733	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	M21-Oc24733	CP	mg/kg	8.6	12	32	30%	Fail	Q15
Lead	M21-Oc24733	CP	mg/kg	52	45	14	30%	Pass	
Mercury	M21-Oc24733	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	M21-Oc24733	CP	mg/kg	110	88	19	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Oc24733	CP	mg/kg	54	58	8.0	30%	Pass	
TRH C29-C36	M21-Oc24733	CP	mg/kg	60	78	26	30%	Pass	
TRH >C10-C16	M21-Oc24733	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Oc24733	CP	mg/kg	100	120	15	30%	Pass	
TRH >C34-C40	M21-Oc24733	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
Pentachlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M21-Oc24733	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M21-Oc24733	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Oc24733	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Oc24740	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M21-Oc24740	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Oc24740	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M21-Oc24740	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M21-Oc24740	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
John Nguyen	Senior Analyst-Metal (NSW)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Ecoteam
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Lismore
NSW 2480

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Lise Bolton**

Report **829779-W**
Project name Rouse St Tenterfield DSI
Project ID 21299
Received Date Oct 06, 2021

Client Sample ID			**TB**	**DRAIN**	**GW1A**	**GW1B**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Oc08669**	**S21-Oc08670**	**S21-Oc08671**	**S21-Oc08672**
Date Sampled			**Sep 30, 2021**	**Sep 30, 2021**	**Sep 30, 2021**	**Sep 30, 2021**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	113	115	113	113
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			TB	DRAIN	GW1A	GW1B
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Oc08669	S21-Oc08670	S21-Oc08671	S21-Oc08672
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	71	68	57	78
p-Terphenyl-d14 (surr.)	1	%	134	126	117	[Q09]INT
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
Total cresols*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Phenol-d6 (surr.)	1	%	28	26	22	27
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	< 0.001	0.003	0.003
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	0.001	< 0.001	0.005
Copper	0.001	mg/L	< 0.001	0.005	0.001	0.002
Lead	0.001	mg/L	< 0.001	0.003	0.028	0.047
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	0.001	0.002
Zinc	0.005	mg/L	< 0.005	0.072	0.021	0.032

Client Sample ID			GW2A	R1
Sample Matrix			Water	Water
Eurofins Sample No.			S21-Oc08673	S21-Oc08674
Date Sampled			Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	115	114
Total Recoverable Hydrocarbons				
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	74	72
p-Terphenyl-d14 (surr.)	1	%	142	132
Phenols (Halogenated)				
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01

Client Sample ID			GW2A	R1
Sample Matrix			Water	Water
Eurofins Sample No.			S21-Oc08673	S21-Oc08674
Date Sampled			Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit		
Phenols (Halogenated)				
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01
Phenols (non-Halogenated)				
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006
Total cresols*	0.01	mg/L	< 0.01	< 0.01
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003
Phenol-d6 (surr.)	1	%	29	25
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1
Heavy Metals				
Arsenic	0.001	mg/L	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	0.002
Lead	0.001	mg/L	0.001	0.003
Mercury	0.0001	mg/L	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001
Zinc	0.005	mg/L	0.005	0.007

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
BTEX	Sydney	Oct 06, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Oct 06, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 06, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (Halogenated)	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Oct 07, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

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Company Name: Ecoteam
Address: 13 Ewing Street
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NSW 2480

Project Name: Rouse St Tenterfield DSI
Project ID: 21299

Order No.:
Report #: 829779
Phone: 0428 215 124
Fax:

Received: Oct 6, 2021 8:15 AM
Due: Oct 7, 2021
Priority: 1 Day
Contact Name: Lise Bolton

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254						
Sydney Laboratory - NATA # 1261 Site # 18217						X
Brisbane Laboratory - NATA # 1261 Site # 20794						
Mayfield Laboratory - NATA # 1261 Site # 25079						
Perth Laboratory - NATA # 2377 Site # 2370						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	TB	Sep 30, 2021		Water	S21-Oc08669	X
2	DRAIN	Sep 30, 2021		Water	S21-Oc08670	X
3	GW1A	Sep 30, 2021		Water	S21-Oc08671	X
4	GW1B	Sep 30, 2021		Water	S21-Oc08672	X
5	GW2A	Sep 30, 2021		Water	S21-Oc08673	X
6	R1	Sep 30, 2021		Water	S21-Oc08674	X
Test Counts						6

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	113			70-130	Pass	
Toluene	%	116			70-130	Pass	
Ethylbenzene	%	111			70-130	Pass	
m&p-Xylenes	%	114			70-130	Pass	
o-Xylene	%	115			70-130	Pass	
Xylenes - Total*	%	114			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	114			70-130	Pass	
TRH C10-C14	%	101			70-130	Pass	
Naphthalene	%	116			70-130	Pass	
TRH C6-C10	%	113			70-130	Pass	
TRH >C10-C16	%	101			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	103			70-130	Pass	
Anthracene	%	121			70-130	Pass	
Benz(a)anthracene	%	112			70-130	Pass	
Benzo(a)pyrene	%	118			70-130	Pass	
Benzo(b&j)fluoranthene	%	122			70-130	Pass	
Benzo(g.h.i)perylene	%	104			70-130	Pass	
Benzo(k)fluoranthene	%	124			70-130	Pass	
Chrysene	%	120			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	122			70-130	Pass	
Fluorene	%	117			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	112			70-130	Pass	
Naphthalene	%	95			70-130	Pass	
Phenanthrene	%	123			70-130	Pass	
Pyrene	%	126			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	90			25-140	Pass	
2.4-Dichlorophenol	%	98			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.5-Trichlorophenol	%	117			25-140	Pass	
2.4.6-Trichlorophenol	%	116			25-140	Pass	
2.6-Dichlorophenol	%	115			25-140	Pass	
4-Chloro-3-methylphenol	%	92			25-140	Pass	
Pentachlorophenol	%	110			25-140	Pass	
Tetrachlorophenols - Total	%	112			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	130			25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	123			25-140	Pass	
2-Nitrophenol	%	107			25-140	Pass	
2.4-Dimethylphenol	%	97			25-140	Pass	
2.4-Dinitrophenol	%	98			25-140	Pass	
2-Methylphenol (o-Cresol)	%	68			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	60			25-140	Pass	
4-Nitrophenol	%	31			25-140	Pass	
Dinoseb	%	127			25-140	Pass	
Phenol	%	31			25-140	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	95			80-120	Pass	
Cadmium	%	95			80-120	Pass	
Chromium	%	91			80-120	Pass	
Copper	%	91			80-120	Pass	
Lead	%	87			80-120	Pass	
Mercury	%	81			80-120	Pass	
Nickel	%	91			80-120	Pass	
Zinc	%	89			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Se60266	NCP	%	109			70-130	Pass	
Toluene	S21-Se60266	NCP	%	109			70-130	Pass	
Ethylbenzene	S21-Se60266	NCP	%	103			70-130	Pass	
m&p-Xylenes	S21-Se60266	NCP	%	107			70-130	Pass	
o-Xylene	S21-Se60266	NCP	%	108			70-130	Pass	
Xylenes - Total*	S21-Se60266	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Se60266	NCP	%	109			70-130	Pass	
Naphthalene	S21-Se60266	NCP	%	110			70-130	Pass	
TRH C6-C10	S21-Se60266	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Se62138	NCP	%	104			75-125	Pass	
Cadmium	S21-Se62138	NCP	%	84			75-125	Pass	
Chromium	S21-Se62138	NCP	%	88			75-125	Pass	
Copper	S21-Se58241	NCP	%	82			75-125	Pass	
Lead	S21-Se62138	NCP	%	84			75-125	Pass	
Mercury	S21-Se62138	NCP	%	90			75-125	Pass	
Nickel	S21-Se62138	NCP	%	80			75-125	Pass	
Zinc	S21-Se58241	NCP	%	88			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	S21-Oc08673	CP	%	102			70-130	Pass	
TRH >C10-C16	S21-Oc08673	CP	%	102			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Oc04272	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Oc04272	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Oc04272	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Naphthalene	S21-Oc04272	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-Oc04272	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S21-Oc08670	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C10-C16	S21-Oc08670	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S21-Oc08674	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S21-Oc08674	CP	mg/L	0.002	0.002	9.0	30%	Pass	
Lead	S21-Oc08674	CP	mg/L	0.003	0.003	10	30%	Pass	
Mercury	S21-Oc08674	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S21-Oc08674	CP	mg/L	0.007	0.007	8.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Emma Beesley	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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CERTIFICATE OF ANALYSIS 279716

Client Details

Client	Ecoteam
Attention	Robyn Mirigliani
Address	13 Ewing Street, Lismore, NSW, 2480

Sample Details

Your Reference	**Tenterfield DSI - 21299**
Number of Samples	2 Soil, 1 Water
Date samples received	06/10/2021
Date completed instructions received	06/10/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	13/10/2021
Date of Issue	12/10/2021

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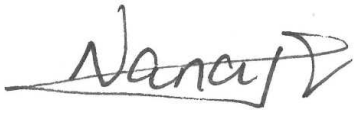
Results Approved By
Diego Bigolin, Inorganics Supervisor
Hannah Nguyen, Metals Supervisor
Josh Williams, LC Supervisor
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	11/10/2021	11/10/2021
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<3	<3
Surrogate aaa-Trifluorotoluene	%	116	115

svTRH (C10-C40) in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	09/10/2021	09/10/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	210	<100
TRH C_{29} - C_{36}	mg/kg	370	<100
Total +ve TRH (C10-C36)	mg/kg	580	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	510	<100
TRH >C_{34} -C_{40}	mg/kg	180	<100
Total +ve TRH (>C10-C40)	mg/kg	700	<50
Surrogate o-Terphenyl	%	95	98

PAHs in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	07/10/2021	07/10/2021
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	107	114

Acid Extractable metals in soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	08/10/2021	08/10/2021
Date analysed	-	08/10/2021	08/10/2021
Arsenic	mg/kg	<4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	7	17
Copper	mg/kg	12	9
Lead	mg/kg	170	9
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	3	8
Zinc	mg/kg	69	52

Misc Soil - Inorg			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	07/10/2021	07/10/2021
Date analysed	-	07/10/2021	07/10/2021
Total Phenolics (as Phenol)	mg/kg	<5	<5

Moisture			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	07/10/2021	07/10/2021
Date analysed	-	08/10/2021	08/10/2021
Moisture	%	6.9	5.7

vTRH(C6-C10)/BTEXN in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	08/10/2021
Date analysed	-	11/10/2021
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	104
Surrogate toluene-d8	%	104
Surrogate 4-BFB	%	92

svTRH (C10-C40) in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	08/10/2021
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	86

PAHs in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	07/10/2021
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b,j+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Benzo(a)pyrene TEQ	µg/L	<5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96

Total Phenolics in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	07/10/2021
Total Phenolics (as Phenol)	mg/L	<0.05

HM in water - total		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date prepared	-	07/10/2021
Date analysed	-	07/10/2021
Arsenic-Total	µg/L	<1
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	<1
Copper-Total	µg/L	<1
Lead-Total	µg/L	7
Mercury-Total	µg/L	<0.05
Nickel-Total	µg/L	<1
Zinc-Total	µg/L	8

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.

Method ID	Methodology Summary
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			11/10/2021	1	11/10/2021	11/10/2021		11/10/2021	11/10/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	119	122
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	119	122
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	124	128
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	117	121
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	119	121
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	118	119
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	125	126
naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	113	1	116	114	2	114	107

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			09/10/2021	1	09/10/2021	09/10/2021		09/10/2021	09/10/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	124	108
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	210	200	5	115	118
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	370	370	0	132	115
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	124	108
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	510	510	0	115	118
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	180	190	5	132	115
Surrogate o-Terphenyl	%		Org-020	102	1	95	96	1	127	98

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	116	109
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	115	105
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	114	102
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	130	122
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	121	110
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	123	111
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	87	87
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	122	124
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	115	1	107	114	6	120	107

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date prepared	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	08/10/2021
Date analysed	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	08/10/2021
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	111	92
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	114	91
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	120	96
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	103
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	117	91
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	100	107
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	115	92
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	85

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	[NT]
Date analysed	-			11/10/2021	[NT]	[NT]	[NT]	[NT]	11/10/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	127	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	119	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate toluene-d8	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate 4-BFB	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
Surrogate o-Terphenyl	%		Org-020	82	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Naphthalene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Acenaphthylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	77	[NT]
Fluorene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Phenanthrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: Total Phenolics in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: HM in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Lead-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	105	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix L

Gas Detector Calibration Report

PID Calibration Certificate

Instrument **PhoCheck Tiger**
Serial No. **T-111084**

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93ppm Isobutylene	NIST	BR129		93ppm

Calibrated by: **Braeden Curtis**

Calibration date: **24/09/2021**

Next calibration due: **24/10/2021**

Appendix M

Groundwater Sampling Logs

Water Quality Sampling Field Sheet

ecoteam Groundwater Sampling Log		Weather/ conditions: Overcaste, some rain	
Project name:	Rouse st, Tenterfield	Date Commenced:	29/9/21
Project No:	21299	Date Completed:	30/9/21
Location:	Tenterfield	Supervisor:	Lise Bolton

Sample Information			
Well ID	GW1	Well Depth:	2.58
Sample Device:	Plastic bailer	Well diameter:	50 mm
Water Meter:	Sma-troll	Standing water level:	1.1 m
Screen length:	1-2m (0.5-2.5)	Effective volume:	3L
Casing type:	PVC	Purge volume:	9L

Site Conditions

Time	pH	EC	DO	Temp	ORP	Volume
5:10	7.59	1,189.1	7.28	19.27	1,1619	0L
8:44	7.44	1,118.3	37.63	12.21	1,228	3L
2:18	7.18	1,015.1	62.20	17.41	1,228	6L
4:46	7.25	1,435	73.33	16.93	1,215	9L
						SAMPLED

Notes: Some murky water at bottom.
Very low recharge.

Groundwater Sampling Field Sheet

Water Quality Sampling Field Sheet

ecoteam Groundwater Sampling Log		Weather/ conditions: Overcaste, some rain	
Project name:	Rouse St, Tenterfield	Date Commenced:	30/9/21
Project No:	21297	Date Completed:	30/9/21
Location:	Tenterfield	Supervisor:	Luke Botha.

Sample Information			
Well ID	GW2	Well Depth:	5.5m
Sample Device:	Plastic bailer	Well diameter:	50 mm
Water Meter:	Smartroll	Standing water level:	1.70
Screen length:	2.3m (2.5-5.5)	Effective volume:	7L
Casing type:	PVC	Purge volume:	21L

Site Conditions						
Time	pH	EC	DO	Temp	ORP	Volume
8:40	7.57	9.92	64.63	16.52	1,251	0L
8:50	7.57	1,023	49.80	16.84	1,249	5L
2:11	7.32	985.68	71.51	16.31	1,229	10L
2:17	7.39	1,014.7	75.51	16.71	1,235	16L
3:00	7.17	974.9	85.25	16.89	1,224	18L
4:30	7.20	986.3	67.50	16.31	1.228	21L
						SAMPLES

Notes:

Groundwater Sampling Field Sheet

Heritage Referral DA 2021-132
148 Rouse Street, Tenterfield.

Sexton and Green in the early 1950's

Source K. Halliday

November 2021

Prepared by
Clarence Heritage
For Tenterfield Shire Council.

1. Background

After over 100 years of trading, this mechanical business and car dealership closed its doors in 2021, leaving a legacy of history to the town. This car dealership site is located in close proximity to the historic town centre and presents an opportunity for a well considered development which pays respect to the history of the town and sits sympathetically in a rich historic context. Preliminary design concepts were provided to Tenterfield Shire Council prior to lodgement and feedback was provided which raised various issues including the restoration of the existing remaining historic fabric and need for further historic research. This referral reviews the submitted plans by MGA dated 07.10.21 DA00-DA09 and a SOHI by Ashleigh Persian of Urbis dated 14/9/21.

2. Proposed Development

The proposed development is described as follows:

Stage 1

- Demolition of Existing Repair Workshop
- Entertainment Facility/Cinema
- Food and Drink Premises
- Pedestrian Corridor to Existing Shopping Facility and
- Car Parking

Stage 2

- Recreation Facility (indoor)/Bowling Alley;
- Food and Drink Premises
- Health Services Facility/Medical Centre; and
- Centre Based Child Care Facility.

Applicant: Shun Hung Pty Ltd (Contact Person: Rosie Sutcliffe)

Owner: Sexton & Green Sales & Service

3. Location

The DA applies to Lot 3, DP 1138201, Lot 1, DP 516621 and Lots A & B, DP 150057 located at 148 Rouse Street Tenterfield. This is a prominent corner site with wide frontages to both Rouse Street and Miles Street, and marks an important entry point to the commercial and retail section of the town centre. Land to the south is characterised by residential and motel accommodation. The former car dealership site includes a modified former historic building circa 1923, the main façade of which retains original detail.

4. Heritage Status and policies

The property is located within Tenterfield Town Centre Heritage Conservation Area and lies in the vicinity of several individual heritage items. Tenterfield LEP 2013 includes statutory heritage provisions set out in Clause 5.10. Council must consider the effect of the proposed development on the heritage significance, fabric, setting and views of the Conservation Area and adjacent heritage items.

Figure 1 Heritage items marked brown in the vicinity of the site including State Heritage Register Items of the School of Arts and Post Office marked in blue hatching, and corresponding anchor buildings to the corner sites, Peberdy House at and the Catholic Church complex in Miles Street,

The Conservation Area has assessed historic, aesthetic and social significance and the summary statement of significance is as follows:

'Tenterfield Heritage Conservation Area is a substantially intact, representative and well preserved example of a civic, commercial and residential precinct which demonstrates rarity locally. Tenterfield evolved in response to both the physical characteristics of its location, and to the broader historical patterns and events that have shaped the development of New South Wales and its position near the Queensland border. As the post war growth of the town has been very modest, it has retained much of its historic character and fabric. It is assessed as having historical, associative, social and aesthetic cultural significance.

It retains a core of buildings with fine examples of commercial, governance, education, ecclesiastical, domestic and social development dating from the 1850s to the 1950s which demonstrate confidence in the development of a township in the northern tablelands during this period.

The precinct contains significant street vistas and spaces radiating from the main intersection of Rouse and Manners Streets and includes the historically significant town 'square' open space of Bruxner Park. The buildings, streetscapes and other elements, open spaces and tree plantings are enhanced with vistas and views of the Great Dividing Range and Mount Mackenzie. The main street precinct is anchored by four significant, two storey buildings on the corners of Manners and Rouse Streets and punctuated by other notable larger scale buildings along the main commercial frontage. Tenterfield Creek runs parallel to the western side of the main street, with open areas set aside for public recreation.
The residential streets are significant for retaining a predominance of early dwellings on large allotments with some later examples of infill from the post war period, some of which are significant in demonstrating the evolution of styles and fashion of architecture. The whole precinct is significant for the collective values of low scale buildings of traditional materials and colours, with generous landscaped setbacks, original and contributory fences, some early remnant stone curbing, avenue plantings, and private gardens with early plantings of historical and aesthetic interest. The whole place is a living cultural landscape with high integrity and with few exceptions, all the elements of the precinct contribute to the whole in a significant way.
Extract SHI 2490394 https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2490394

5. Review of SOHI

The submitted SOHI is a desktop report, based on photos provided to the author. No site inspection was undertaken. It reiterates the above Statement of Significance and descriptions from the SHI but has not provided any site research or detailed assessment of the proposal against the various significance criteria set out in the State Heritage Inventory for the Conservation Area. It also lacks a detailed assessment of the impact of the development on the significance and settings of heritage items and buildings in the vicinity of the site.

It is acknowledged that Covid 19 placed limitations on interstate travel however information and research could have been sourced from persons with knowledge of the area or a heritage consultant utilised with access to the area.

Further assessment is required to document the significance of the site, assess the impact of the proposal on the significance and settings of the town centre and gateway position, and ensure that any archaeological potential is carefully assessed through design and works and its history is interpreted through any new development.

6. History

The following information is provided to assist with an understanding of the significance of the site.

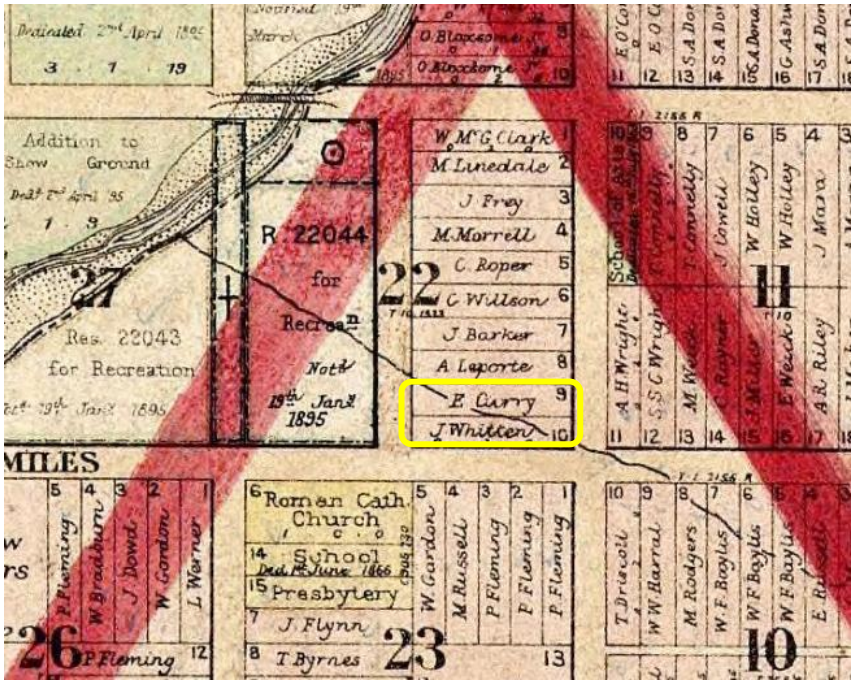


Figure 2 1895 Town Map shows the site in the ownership of J Whitton and E Curry.

The Suters Main Street Study of 1997 outlined that 'this site was formerly the site of a hotel'. The origin of the Golden Fleece hotel on this site is however disputed. The Tenterfield Family History Group has examined early rate books and photos and advise that this was a vacant lot. *In very early photos this is a vacant lot on the corner of Rouse and Miles. There was a big culvert there and with heavy rain it would flood (which is still there if you take a look at Crown Street).*

Figure 3 Photo of the corner of Miles and Rouse Street circa 1870's Source; K.Hurtz.

The Golden Fleece Hotel is considered to have been located several blocks along Rouse Street to the north of 306 Rouse Street. Suters Main Street Study contains some errors and in 1990 did not have access to records now available such as Trove and State archives and the more detailed research being undertaken on Tenterfield's main street precinct.

Figure 4 c1875 from left it shows the Commercial Hotel, Browns Assembly Rooms, Melbourne Stores (306 Rouse) and what is believed to be the Golden Fleece hotel or Isaac Whereat's store.

The following information extract is from '*A Walk down Rouse and High Streets'*, a project of the Tenterfield Family History Group to document the reminiscences of Henry Kline. Henry Kline arrived in Tenterfield in 1889, working at Whereat's Boot Factory., He recorded his memories of the shops along Rouse and High Streets in 1939. Mr Kline's reminiscences were typed up from a carbon copy of that recording.

*…crossing Miles Street (*he recalled*) E Butler and a bakery and a Mr Crisp Butcher.*
In 1913 Charles Sexton commenced an engineering works there. Fred Green had a 1915 Buick which he would offer to drive people in. By 1916 it was called Sexton and Green.
In 1923, A. Griffen built an extension on the southern side and the old culvert next to the existing building was covered in.
By 1926 Charles Sexton left for Sydney and Fred Green was the owner manager for many years after that. The open section where new cars used to be parked had a house on it. (That would be Section 22 Lot 9. The Coles block commences at lot 8 and that is where the baker's shop would have been.)

Source K.Hurtz, Family History Group.

Ken Halliday author of several historical publications on Tenterfield and the district provided the following historic photos of the Sexton and Green site and four reports outlining the development of the business and contributions of individuals who worked there over several decades.

Figure 5 Double gabled building circa early 1920s likely of timber construction. Source K. Halliday

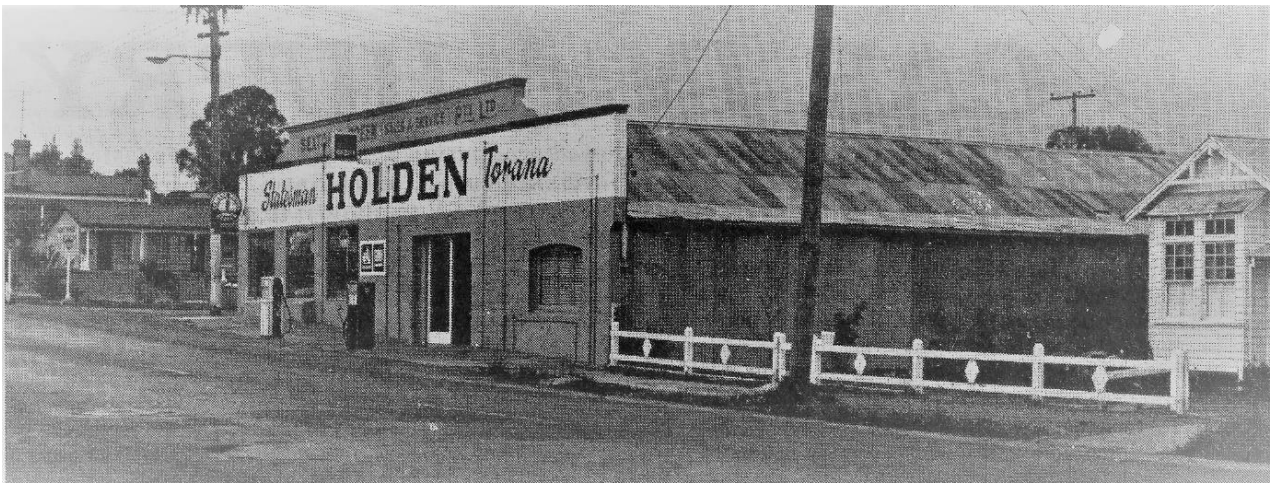


Figure 6 Undated photo possibly late 1920s. showing addition of brick parapet to the gabled building. Bricks are unpainted other than signage band. This photo also shows the projecting element forward of the southernmost window on the pavement. Source K. Halliday.

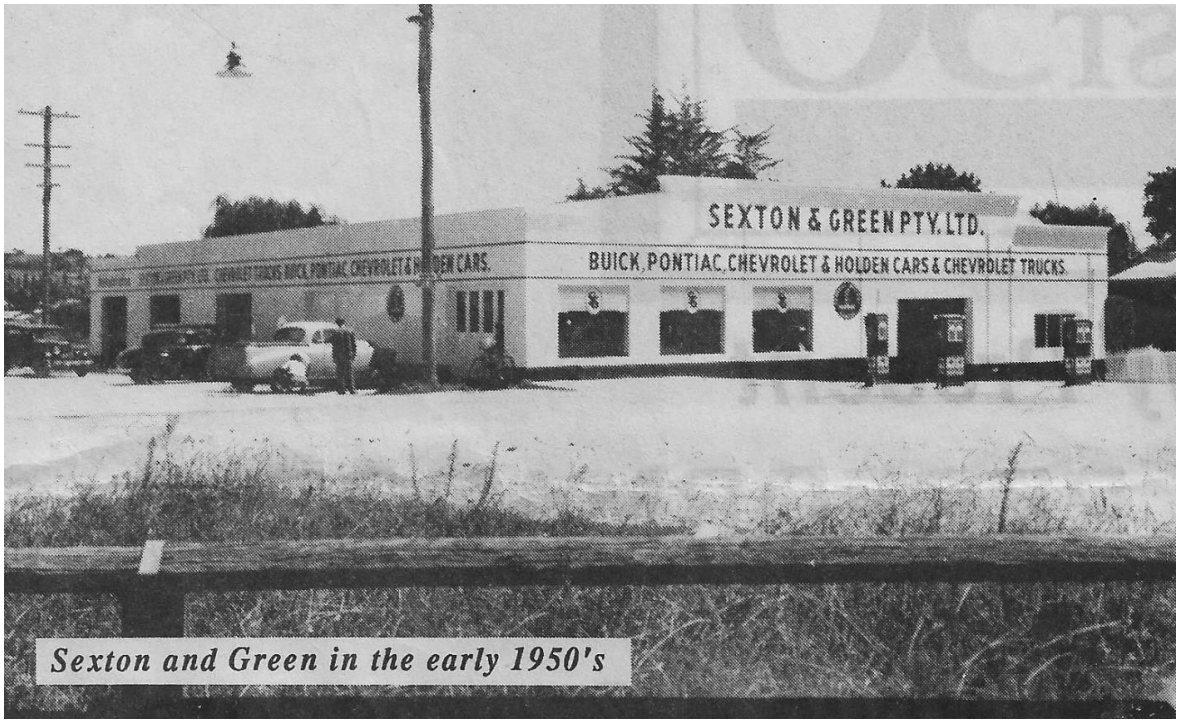


Figure 7 Painted / rendered building with new signage circa 1950s. source K. Halliday

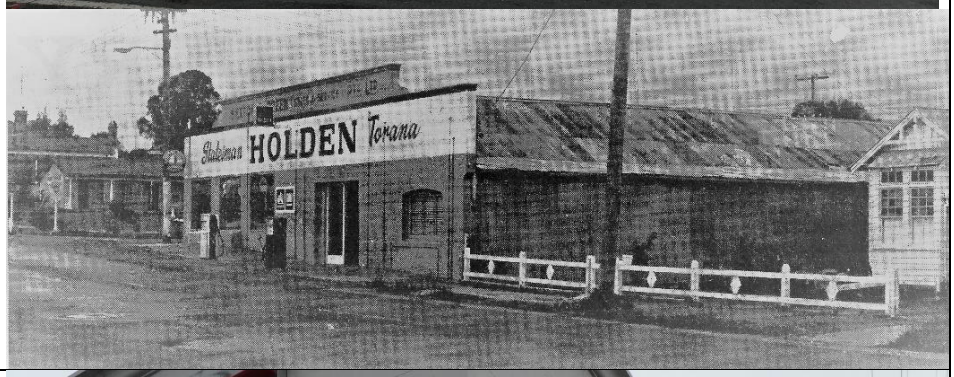
K. Halliday has provided articles at Appendices 1, 2, 3 and 4 outlining Charlie Sexton and Fred Green and their partnership in the motor business, Sexton & Green, the motoring legend, the career of Roy Sommerlad who worked in the business for 53 years, and Norm Tommerup who also worked at Sexton and Green as an auto electrician and mechanic.

This provides valuable social history about this site and demonstrates historical social associative significance. The history of this site should be carefully assessed and interpreted as part of a new development.

The building façade appears to correlate with the 1920s extension of the motor business and forms part of the historical fabric of the Conservation Area. The façade is rendered with ashlar markings and a simple cornice mould to the parapet. Early photos show that the three square openings and the arched opening correlate closely with the original openings. The purpose of the low walled projection near the street corner needs to be confirmed. It has been suggested that it was for access to a cellar or may have been connected to the motor business. There is potential for this façade to be restored as part of the development and retain the connection to the historical significance of the site

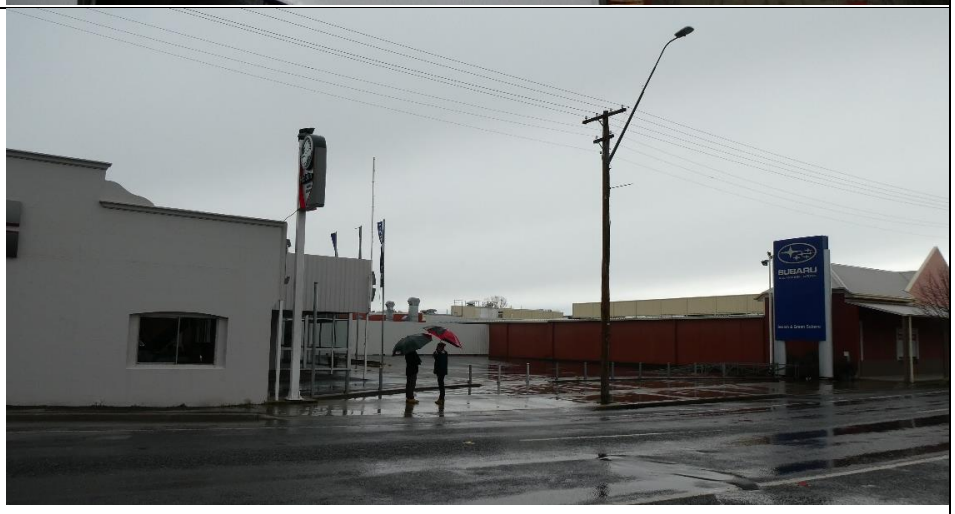
Further research and a detailed assessment of the archaeological potential of the site by a professional archaeologist is also warranted.

7. Observations 148 Rouse Street

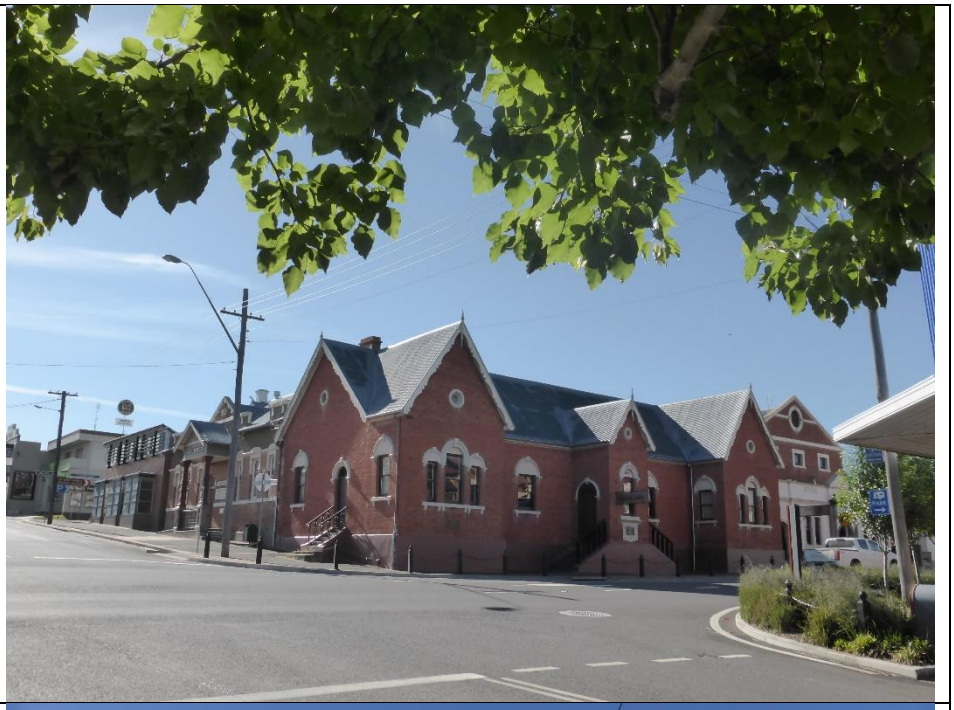
Principal façade and parapet. The original openings relate closely to early photographs.	 
Ashlar marking to rendered masonry.	

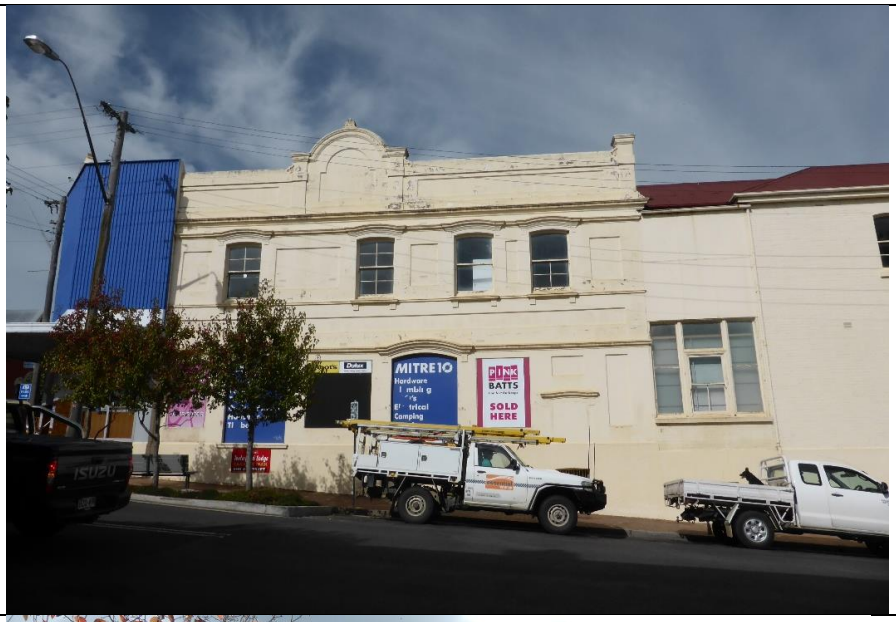
Projecting structure on pavement. Further investigation is required.	
Original arched head opening.	

Interior wall showing evidence of original brick work. Much of this has been rendered over and lined internally.	
Delaminating paint layers possible rising damp issues in areas of the painted brickwork.	

Interior of showroom with non-original fabric, ceiling linings and wall linings.	
View of site from the opposite side of road presents a void to the streetscape. A building to address the street frontage is desirable to enclose the space.	
Southern wall of commercial development. Hipped roof and a projecting gable parapet feature fronting Rouse Street. The terracotta colour scheme is sympathetic in context.	

Views on opposite side of road facing north towards the School of Arts, and Victorian terraces.	
View to south comprising principally residential and motel type accommodation.	

Sir Henry Parkes School of Arts State listed Heritage item. Multiple gabled roofs are a prominent feature of the streetscape on both frontages.	
Tenterfield Post Office A landmark Italianate late Victorian State Heritage Listed Item.	

Melbourne House/Reid's Stores significant Victorian two storey heritage item.	
Former Exchange Hotel (The Corner) another significant landmark heritage item.	
'Peberdy's House' 182 Rouse Street Victorian two storey house now commercial premises.	

8. Heritage Criteria Assessment

Criteria a) Historical Significance

The Town Centre Conservation Area is historically significant demonstrating design, location and purpose in the economic development of a township on the northern tablelands between the mid-19th century and continuing to the mid 20th century. It's physical evidence is enhanced by the many associations Tenterfield holds with important people in Australian history. The Conservation Area has a high proportion of quality dwellings, public buildings, streets, back lanes, street trees and landscaping, which collectively illustrate an identifiable pattern of domestic, industrial and commercial settlement in Tenterfield by early settlers, and a pattern of development of civic infrastructure.

Comment

The site demonstrates historical significance for its link to an early engineering and motoring business which operated in excess of a 100 year period as a prominent business in Tenterfield including the marketing of Australia's Holden cars. The building retains original historic fabric in the principal façade.

Criteria b) Historical Associative Significance

The development of the town holds historic associative significance for its associations with many important people in Australian history including Sir Stuart Donaldson who became the first Premier of New South Wales, and Sir Henry Parkes, Premier of colonial New South Wales and 'Father' of Federation. In addition, its development is associated with leading settler families, civic officials, prominent people of the township including police, Shire Councillors, Court officials, teachers, doctors and nurses, as well as business and tradespersons who have made ongoing contribution to the social and economic development of the township.

Comment

The site demonstrates historical associative significance to Charlie Sexton and Fred Green early partners and pioneers in this motor business, who contributed to the economic development of the township and district. It also holds association with several long standing employees including Roy Sommerlad and Norm Tommerup who served in the businesses for several decades who are held in regard at a local level for their service to the community.

Criteria c) Aesthetic Significance

The Tenterfield Town Centre Conservation Area is aesthetically significant as a largely intact historic township with a collection of late 19th century and to mid 20th century buildings in a picturesque setting with a backdrop of a rural granite belt landscape. The main street precinct includes several landmark historic public and commercial buildings, in conjunction with more groups of modest but period commercial premises retaining much original fabric in the form of early shop fronts, tiling and fenestration. There is a strong collective streetscape value through the historic relationships between commercial, civic and domestic buildings, and a harmonious relationship of scale, form, traditional materials and associated plantings and spaces which are part of the settings of many buildings. Materials of Tenterfield red brick, stucco, some use of stone,and weatherboards to domestic dwellings

predominate with traditional galvanised metal roofing. Commercial buildings demonstrate aesthetic significance for retention of much original fabric including original tiling, ornate parapets and other embellishments, chimneys which punctuate the skyline, verandahs to the street, original timber and early metal framed shopfronts. Also of aesthetic significance is the major open space known as Bruxner Park and the natural parklands which adjoin Tenterfield Creek. Large allotments provide good settings for the historic residential building stock and mature plantings. Wide streets contain avenue plantings, including the heritage listed Pin Oaks which are significant to the sense of place. Views and vistas of rural landscapes form part of the commercial and residential precinct.

Comment

This is an important corner site in the Heritage Conservation Area which marks the gateway entry to the commercial and retail precinct of the town. Its lies within the vicinity of several notable heritage listed items and other contributory non listed buildings .The building retains its original form and materials in its original front façade which demonstrate the local vernacular materials of Tenterfield and is worthy of restoration.

Criteria d) Social Significance

The Town Centre Conservation Area shows evidence of community achievement in shelter, law, health, public order, recreation and landscape development. It has been the commercial and civic heart of the community and contains the major civic and ecclesiastical buildings in close proximity to the centre which hold great social significance to the community. It has also been an important part of the lives of workers and their families. Many well known stories have emanated from the precinct creating its own cultural identity.

Comment

The contribution of this motor business influenced the economic and social development of the local area from the first doctor's vehicle to widespread vehicle ownership. The site holds broad social significance to the community for its connections to this function.

9. Comments on Proposed Plans

As outlined above, a more detailed assessment of the historical significance and fabric of the building and archaeological potential should be provided in an updated SOHI. The main parapet front façade is considered to demonstrate historic significance. The results of this could have an impact on final plans.

Retention and restoration of the building and integration with a new development is strongly recommended to maintain the historical significance, fabric of the town centre.

Further assessment of the archaeological potential of the site should also be carried out. Heritage interpretation of the history of this site should be incorporated into final designs.

The predominant built form and character in the heritage conservation area is characterised by gabled and hipped roofs, parapets, a higher proportions of solid wall to glazing, vertically proportioned openings, and a material palette of historic red brick, painted and rendered surfaces, and a warm colour palette.

Overall, the bulk, scale, form and proportions, materials and elements are considered harmonious with the established character of the town centre, allowing the historic elements to retain prominence. Subject to incorporation of the 1920s historical façade and parapet, the proposed design is considered acceptable in principle.

The existing car dealership parking area is a large void in the streetscape, and the proposed development to create a built frontage and place the parking to the rear is positive and supported.

The demolition of non-historic fabric and provision of a sympathetic building is considered positive to the Heritage Conservation Area by enclosing the streetscape.

The design is complementary to the pattern of traditional roofs forms in the HCA which include hipped, parapet and gabled roofs. It is necessary for the new development be identifiable as a new infill which is sympathetic to the context without replication of heritage historic type detailing. The gabled roof form can be expressed in a contemporary manner without exact replication and reflects the various gabled roof elements in Rouse Street.

The division of the proposed development built form into various components is successful as it does not present a bulky appearance.

The central courtyard and linkage to parking at the rear is a positive aspect which provides linkages and permeability through the site to community open space at rear.

The provision of a covered awnings over the pavement adds enclosure to the streetscape and enhances the streetscape for pedestrians.

Although there is currently an unarticulated wall facing Miles Street, the proposed redevelopment presents an opportunity to provide a more aesthetically pleasing façade to this street which has high public visibility on the town entry, is directly opposite historic houses of various eras and close to the Catholic Church precinct. Some modulation of this façade and extension of an awning to Miles Street would assist in this regard.

The proposed material palette includes materials such including a masonry face brick façade, rendering and glazing. The proposed paving surfaces include asphalt paving with brick banding, concrete paving. The public footpath and paved surfaces in the public realm should be consistent with the main paving.

10. Recommendations

- **A detailed assessment of the significance and fabric of the building, the potential impact of the proposed development on the significance of the HCA and heritage items in the vicinity of the site, and an assessment of the archaeological potential of the site should be provided in an updated SOHI.**

- **The historic building façade should be retained and restored and integrated with the new development to maintain a linkage to the historical significance of the site and conserve early fabric of the town centre.**

- **A heritage interpretation plan should be provided with the application to convey the significance of the site in the proposed development.**

- **A detailed schedule and samples of all external finishes and colours, sympathetic to the Tenterfield Heritage Conservation Area are to be provided for prior approval.**

11. Summary

This represents an excellent opportunity to create an appealing development on a prominent town entry position which respects and enhances the heritage significance of the site and its context. The heritage values of Tenterfield are strongly upheld by Council and promoted through economic development and tourism.

Acknowledgments
Ken Halliday
Kay Hurtz

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Appendix 1

Charlie Sexton's vision helped make Holden a household word.

By KEN HALLIDAY

Charlie Sexton's vision and skill in the early 1920's did much to develop the car sales and service industry in Tenterfield and later make the name Holden a household word in the town and district.

Today's Sexton & Green car business kicked off in September 1919 with a 25pound partnership between automotive engineer Charlie Sexton from Sydney and builder Fred Green from Casino. At that time there were only a few cars around and the old faithful horse drawn coach and carriage transport was being phased out. The Sexton & Green partnership embraced both the motor garage, known as Tenterfield Motors and the Lyceum Theatre.

A little while earlier, the proprietor of a hotel in Lismore had bought a car but on the very first day, it over turned and no one knew much about cars, so the publican sent to Sydney for an automotive engineer who could come and tell him how to fix the car. The automotive engineer was Charlie Sexton who travelled from Sydney to Lismore and when he completed the job, the publican asked him to stay on and offered him a job to look after the car.

It was his knowledge of the new "horseless carriage" that later led Charlie Sexton to Tenterfield. It was at the call of Dr J.A. Watt who bought one of the first cars in Tenterfield where he had been medical practitioner since 1907.

Dr Watt was at times, the only doctor caring for the community's health. In the early days he drove a pony and sulky, often accompanied by his wife as he traversed the entire district in all sorts of weather conditions. Completely oblivious to the technical aspects of the new mechanical age, Dr Watt had gone to Sydney and drove home his first car...a Buick.

The introduction of motorised transportation enabled Dr Watt to speed up on house calls. His medical counterpart, Dr Digby said at the time of Dr Watt's retirement in 1939 that he hoped that the Doctor would be able to tear around corners on one wheel for a long time to come. Indeed, Dr Digby's wish was to some extent fulfilled with Dr Watt retaining his licence up to the age of ninety years.

After fixing the problem with Dr Watt's Buick, the young Charlie Sexton decided to stay on in Tenterfield and in 1915 married local girl Ruby Crisp. The couple proved to be among the most forward thinking people of their generation, both having the courage and initiative to go with it.

Besides co-founding Sexton & Green Pty Ltd in 1919, Charlie Sexton established Tenterfield's first movie theatre, the Lyceum and also the first skating rink. The Lyceum Theatre, run by Sexton and Blanch, first operated at the Gymnasium Hall in Molesworth Street and moved into the School of Arts in July, 1913.

In September 1919, Charlie Sexton and Fred Green formed the partnership Sexton & Green to operate both the Lyceum Theatre and the motor garage known then as Tenterfield Motors at 306 Rouse Street. The partnership was dissolved by mutual consent on August 30 1933, leaving Fred Green to carry on the business while Charlie Sexton leased the Tenterfield Engineering Works.

On January 31, 1934 the proprietary company Sexton & Green Pty Ltd was established with directors, Frederick James Green (garage proprietor), Colin Imberger (mechanic), Margaret Isabelle Green (domestic duties), Lilian Bessie Whereat (clerk), Charles Robert Humphrey (mechanic), Roy Sommerlad (mechanic) and Lionel Crisp (mechanic).

Sexton & Green sold Tenterfield Motors in July 1950 to Oliver Hynes. In 1951, Fred Green withdrew and the company was bought out by shareholders, Roy Sommerlad, Lionel Crisp and Charles Robert Humphrey and registered as Sexton & Green (1951) Pty Ltd.

A former spare parts manager for McLeod Kelso & Lee in Newcastle, Eric Cook bought the company in 1962. The business became registered as Sexton & Green (Sales & Service) by new owners Graham Rossington and John Wilson in April 1973.

After leaving Tenterfield, Charlie and Ruby Sexton went to Dubbo where Charlie worked for General Motors Holden for sixteen years. They retired to Port Macquarie which was then a little holiday village where they boosted their income by letting holiday cottages.

Civic affairs were always in the mind of Charlie Sexton and he served as an alderman of the Port Macquarie council for six years. The Sexton's love for Australia's native flora and fauna led them and their daughter and son-in-law Joan and Allan Martin to founding of "Sea Acres", a wildlife refuge in the rainforest near Port Macquarie. It took two years to cut through government red tape to establish the sanctuary.

Charlie Sexton died at Port Macquarie in 1961 and his wife Ruby died there on December 19, 1991 at the age of 99 years.

Appendix 2

Sexton & Green, the motoring legend

By KEN HALLIDAY

People in rural areas who have special travel needs because of the long distances covered, have for generations had a love affair with the motor car and companies like Sexton & Green that has served them with a distinctive history. For Sexton & Green (Sales & Services) Pty Ltd, their record has been aided by the application of the pleasure principle in both product and customer service.

Having played a role in the Tenterfield district's transportation saga since the horse-drawn carriages of the 19th and early 20th centuries, the company is acutely aware that to be a pioneer requires among many things, courage and foresight.

In the decade before Graham Rossington and John Wilson took over the reins at Sexton & Green in 1973 and in an era of the swinging sixties, the EH Holden seemed as modern as the day after tomorrow.

A decade later, the new VL Commodore was launched to an enormous customer response making them the company's most aggressive entry into an increasingly competitive market. Sexton & Green has mirrored national trends in the motor vehicle industry and embraced the principle of General Motors to source some of their car lines from overseas interests.

To-day, Holden's products are represented right across the vehicle market with entries which include the Jackaroo and Rodeo in light commercials and the top selling Isuzu range in the truck segment.

Yet, there are many collectors who would not part with their original 1948 model Holden for any number of advances in technology. Modern version or old, the symbol of this nation's post-war vigour remains Australia's own car, the Holden.

Today's automotive market in Australia is perhaps the most complex in the world. The annual volume of car sales compete in an environment that includes regulations on local content, import duties and quotas, unique design requirements for construction standards and vehicle emission levels.

In addition, country road conditions are recognised as among the most physically demanding in the world.

It has to be admitted that recent times have been difficult for the car industry which has had to deal with the effects of fluctuating international currency, the introduction of lead free fuel, variable interest rates and increasing taxes.

These difficulties will not be solved overnight but Sexton & Green's commitment and professionalism provides the best promise of a bright future...a promise that improved stability in the economy would greatly assist.

Sexton & Green is of significant importance to the town and region's economy. It employs people directly in sales and service. As well as providing employment, the company also makes an important contribution to government revenue at all levels in the form of local government rates, import duties, licence fees, sales tax, registration fees, fringe benefit tax and indirectly through the oil price levy. The company has invested in state-of-the-art workshops and equipment plus commitments for future years.

Looking to the future Sexton & Green' new Holden products will continue to enhance and expand on existing success and strong customer appeal. There are very few products in any country that are so famous that they are almost synonymous with the country itself. In Australia, that honour belongs to the Holden.

Appendix 3

Many changes over half a century

By KEN HALLIDAY

The great Par Lap had just been defeated by Nightmarch in the Melbourne Cup when Roy Sommerlad (1914-2008) started work at Sexton & Green in 1930. It was a time when people were saying that like Australia, the champion of the turf Phar Lap was carrying too much weight. The Great Depression was biting deeper as government policies only made things worse by reducing the spending power of the people and the nation's unemployment figures were to reach 40pc within the next couple of months.

As a young man entering the motor industry, Roy Sommerlad witnessed the industry being heavily hit by the depression and grinding to a halt by 1933, when Holden's Motor Body Builders ceased production. At that time, Edward Holden turned his body building works into the biggest maker of fruit cases in the country and made a range of products from filing cabinets to golf clubs.

Working at Sexton & Green for 53 years, Roy Sommerlad saw many changes including the disappearance of several makes of cars. There was also alterations to car sizes and the countries of origin. This time span also saw Roy Sommerlad become a shareholder in the company.

Three years after joining the staff of Sexton & Green, Roy Sommerlad went to Sydney to train in tyre re-treading techniques. Back in Tenterfield, he helped the company set up a tyre retreading plant which was operated by a wood fired boiler to get steam up for the retreading procedure.

A mould was used to do the retread in three sections with the most difficult aspect of the operation being to join the cooked rubber to uncooked rubber. If the rubber failed to join properly, it tended to break away easily as the vehicles bumped along the rough dirt roadways. The retreading plant operated for many years and Roy Sommerlad was pleasantly surprised that the plant had been sold when he returned from service in World War 11.

Comparing car sales in the 1930's to the 1970's, Roy Sommerlad considered that the greatest changes had been in car buying habits. During his early days in the motor car industry, the most sought after makes were Chevrolet, Ford Canadian, Vauxhall, Morris, Chrysler/Plymouth, Dodge, Austin, Oldsmobile, Pontiac and Buick.

Almost all the cars were imported and in the 1940's the major change was a swing from American to British design because Australia could not afford the American dollars. For a time there was a total ban on importing cars from the USA and three British firms, Rootes, Rover and Austin set up factories in Australia.

But, according to Roy Sommerlad, despite all the new models which appeared each year from all the companies, the car itself had changed very little in the 50 years

after Sexton & Green joined similar companies around Australia to launch the Holden car in 1948.

Late in 1944, the Australian government asked motor firms to send in their post-war plans. General Motors worked out a scheme for an Australian car but this was stopped by the head office in America. Finally, production of the Holden was paid for by loans from the Commonwealth Bank and the Bank of Adelaide...not one cent of American money was used.

By this time, the wireless had become the great communicator bringing cities and towns closer together. Roy Sommerlad listened by wireless to the launch of the first Holden coming off the production line at Fishermen's Bend (Victoria) on November 29, 1948. He recalled how the first Holden sold for 675pounds plus tax, making a total of 733pounds.

Prime Minister, Ben Chifley who had fought long and hard for a home gown car, turned the handle of the first Holden off the line. It was the heady mixture of Bakelite, metal and velour that made the Holden motor car the object of the Australian dream in the late 1940's. By the end of that year, a total of 162 cars had rolled off the assembly line and within three years production had reached 100 new vehicles a day.

In 1962, the one millionth Holden was sold at a time when Japanese imported vehicles were beginning to make inroads into the Australian market.

A whole generation Tenterfield people can probably still almost feel the wheel of the first model Holden and perhaps even smell it. There were many things that made the early Holden, the object of our dreams in the 1950's but for one Tenterfield man his dream turned almost to an embarrassing nightmare.

Roy Sommerlad recalled how a local sawmiller, Sam Armstrong became an early Holden owner. Sam Armstrong went shopping in his new blue Holden placing his purchases in the car. When he returned and placed the key into the ignition of what he thought was his new blue Holden, he found the items were missing. It was with greater astonishment that he soon realised the car belonged to someone else. It was what Roy believed to have been an extremely rare incident where the same ignition key fitted two cars.

It was 1953 that Holden released the "new look' range of three different sedan models, the deluxe special, the business sedan and the economy Holden Standard. Roy Sommerlad was at the Hotel Australia in Sydney for the launch of the "new look" range and remembered it as a time when "Holden goes further ahead" with new styling, new features and substantially reduced prices. Holden introduced a new styling for the radiator grille, instrument panel, hub caps and tail lamp assembly. The attractive hood ornaments, gleaming stainless steel body mouldings, rear fender ornaments, leather seats and squads and arm rests in front became all standard equipment for the Holden Special.

Roy Sommerlad saw Sexton & Green expand as the better economic times came along leading to an employment peak of about 21 workers during the 1970's boom

years of the local meat processing industry. At that time about 800 people were employed in the abattoir industry with the Vesty Group's Riverstone Meat Company at Tenterfield and the Anderson Meat Packing Company plant at nearby Wallangarra working to capacity.

Appendix 4

AUSTRALIA'S OWN CAR… a fascination for Norm Tommerup

By KEN HALLIDAY

Cars always held a fascination for Norm Tommerup (1911-2005) but none more so than the car which took its name from the old Adelaide coach and car building firm of Holden and Frost … "Australia's own car"… the Holden. And that is not surprising considering that he worked mainly with Holden vehicles for almost thirty years after their launch in November 1948.

Norm remembered that month well. For him it was a very special memory of having the opportunity of going to the Wentworth Hotel in Sydney for the NSW launch of the Holden FX with Sexton & Green Pty Ltd director, Col Imberger.

The advertising jingle to sell the first Holden motor cars ....."Holdin' You in My Holden" added to Norm's excitement, when after all the pomp and ceremony, he was invited for a test drive. The Holden FX sold for 733 pounds - a small fortune in those days when you could have a couple of blocks of land for the same money.

Norm Tommerup saw Holden become part of the Australian dream. It became the most sought after object, after a home on one's own quarter acre block of land. He applauded the slogan "Australia's Own Car" and the mythology that went with it. He often told the tale of the Holden being so common and simple and its service so good, that you could buy a spare fan belt in any milkbar in the country!

It was after ten years driving taxis for Fred Dove in Tenterfield that Norm Tommerup started working for Sexton & Green in 1939. He continued a 37 year association with the company until his retirement in July 1976.

Norm Tommerup's introduction to the motor industry was at what is now Willowtown Tyres building at 306 Rouse Street, opposite the State Bank. This arm of Sexton & Green's business traded as Tenterfield Motors and operated as a service centre. Tenterfield Motors was sold to Oliver Hynes in 1950.

Norm said "We did not sell cars from Tenterfield Motors. The service centre had a hoist and two pits. There was also a battery charging facility, which was a motor generator type with a 240 volt motor driving a generator. We had to work out how many batteries were to be hooked up each time to get the right voltage going through them."

"Bill Bingham who had been previously working for Ford, managed Tenterfield Motors for a while around 1940, later moving to Willow Tree, south of Tamworth. Bert Romer also worked there for a time.

"The petrol bowsers were the hand pump type with a glass top. If the customer wanted four gallons of fuel, we pushed the lever up to the measure and pumped. It couldn't over fill because when the fuel came up to required level, it then ran into a pipe and back into the tank.

"The technique was for the hose to run the petrol into the car making it necessary to drain the fuel out of the hose to make sure the customer got the full amount. I remember a customer who was used to the old hand pump, being taken aback when he first came to fill up at the new electric pump. He said "Hey that's a bit tough, aren't you going to drain it?"

"There were four petrol bowsers at Tenterfield Motors, dispensing different brands of fuel. Amongst them was Caltex delivered to the business by Arthur Bailey from his Martin Street depot.

“In 1951 the Sexton and Green partnership was dissolved to become a company known as Sexton Green (1951) Pty Ltd with shareholders Lionel Crisp, Fred Green, Charlie Humphries & Roy Sommerlad.”

After about three years in the Royal Australian Air Force during World War 11, Norm Tommerup returned to the employ of Sexton & Green Pty Ltd but this time working from the main garage at 148 Rouse Street. He worked as both a motor mechanic and an auto electrician.

His real love was in electrical work which held a fascination for him. He recalled how farmers used to call him out to the farms to work on their old magneto shearing machines because it wasn't possible to move the machines for transportation into town.

“Once I worked on a complete re-wiring of a car after it had been burned out by an electrical short. My uncle, Bob Miller was the town’s electrical engineer when the DC current power supply operated from near the showground bridge on Manners Street. He taught me a lot about electronics.

“Every man to his trade and I just loved electronics but over the years they changed a lot. They became more complicated. After I finished, the modern day electronic ignition systems got way beyond me.

“It got to a stage where not a lot of repairs could done with the electrical systems in cars, as they became increasingly dependent on a computerised control box. This led to a simple replacement of the entire unit.

“The original 6-volt generator system in the original Chev had no such thing as a regulator. It was a three brush generator, where the third brush was used to control the charge rate. A screw allowed the movement of the third brush plant inside the generator and an amp metre was put on to set the charge. Later, came the two brush generator, with a regulator to cut voltage and control the regulator.”

Norm Tommerup bought his first car in 1947 from Tenterfield Motors. Harry Nowlan of Bryan’s Gap had traded in an old Mystery Overlander c. 1923 and Norm bought it for thirty pounds. He remembered how the engine was knocking, and rain leaked in through the roof. “My wife said what did you buy that for? Anyway, I did the motor up and cut the Overlander down and made a utility of it before selling it for a nice profit at 110 pounds.

“My next car was a 4 cylinder Chrysler square box type sedan, previously owned by Doug Fraser from the Mole River area. Later on I changed to a single seater Plymouth with Dickie seat and coil spring suppression, which all made me feel great.

“Next car for me was a reasonably early model second-hand Holden. It had been traded in by Sandy Watt of “Bondonga” on the Mole River. My first new Holden came along around 1954, the new type motor hydraulic value FC model.
“In 1972, I bought a new Premier HQ which was put on road for $3500 but the price of this type of vehicle edged up to around $35,000-$ 40,000 in the mid-1990’s .”

Among Norm's duties at Sexton & Green was travelling firstly to Sydney and later from around 1960 to Brisbane, where he would collect new cars for the Tenterfield showfloor.

“In the earlier days driving a new car meant that for the first 300 miles it could not be driven over a 30mph and the next 200 miles had a 40mph restriction to allow the engine to settle in. Later, cars were bench tested and could be driven reasonably well without the need to “driven in” at restricted speeds.

“In the pre-war days I went down to Sydney regularly by train to collect the car on a Tuesday. The train arrived at Central Station around lpm and I would go out to

the Pagewood factory and wait.

"I carried with me, a Sexton & Green open cheque because every vehicle had to be paid for before leaving the factory. That changed around 1960 when credit arrangements had been agreed.

"Sometimes I had to go into Sydney to pick up parts at Bennet Wood in the city before taking the winding road to Newcastle via Gosford.

"By the time I got as far as Murrurundi it would be pretty late. I would pull into the side of a service station, lock the doors and have a camp. Next morning I washed, had breakfast and back on the road, arriving in Tenterfield on the Wednesday afternoon."

URBIS

HERITAGE IMPACT STATEMENT

148 Rouse Street, Tenterfield
NSW

Prepared for
SHUN HUNG PTY LTD
1 February 2022

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Associate Director	Ashleigh Persian		
Consultant	Annabelle Cooper		
Project Code	P0034861		
Report Number	01	20.01.2022	Revised HIS for submission
	02	01.02.2022	Revised HIS for submission

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

urbis.com.au

CONTENTS

FIGURES

TABLES

EXECUTIVE SUMMARY

This Heritage Impact Statement (HIS) has been prepared by Urbis Pty Ltd on behalf of Shun Hung Pty Ltd (the applicant) to accompany a Concept Development Application (DA) lodged to Tenterfield Shire Council (Council) at 148 Rouse Street, Tenterfield (the site).

The application includes a concept proposal for a proposed cinema and mixed-use development and a detailed proposal for the construction of the Stage 1 buildings and associated works. The proposal also includes minor works to establish a pedestrian connection between the site and the adjoining property at 162 Rouse Street Tenterfield. Stage 2 of the development, comprising the construction and operation of the child care centre, pharmacy, medical centre, café and bowling alley and signage, will be subject to a subsequent detailed DA.

The proposal aligns with Council's strategic vision to enhance business and lifestyle opportunities whilst creating infrastructure to help support industry and the community.

The subject site is not a listed heritage item. It is, however, located within the boundaries of the locally significant *Town Centre Heritage Conservation Area* (C3), under Schedule 5, Environmental Heritage of the *Tenterfield LEP 2013*. This HIS has been prepared to determine the potential heritage impact of the proposed works on the conservation area.

The subject site has been assessed against the relevant criteria for assessing heritage significance as outline by Heritage NSW and the Heritage Council of New South Wales. It is concluded that the subject site does not meet the requisite threshold for individual heritage listing under any of the criteria.

The subject site contains a pedestrian and highly modified example of an interwar former motor garage. It is not considered to be a fine nor intact example of the typology. It is considered to be generally representative of simple interwar motor garages more broadly and of the evolution of motoring in New South Wales. The subject site is associated with Messrs. Sexton and Green who established the motor garage business on the site in c.1919-20. Sexton and Green were both noted proprietors in the town having also owned the original Tenterfield Pictures / Lyceum Theatre site. The subject site has a degree of historical significance associated with its long running (c.100 years) operation as a motor garage and dealership.

A detailed impact assessment of the proposed works has been undertaken in Section 5 of this report. The proposed development has been assessed to have an acceptable impact on the significance of the Tenterfield Town Centre Heritage Conservation Area. Key aspects of the proposal assessment are listed below:

- The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering.
- The low height projecting masonry element to the principal façade of the former motor garage is being retained. It is not clear what purpose this element previously served however it is evident in photographs from the mid twentieth century and is being retained at Council's request. No further historical information is available on this element.
- The proposal includes construction of a new awning to the principal façade of the former motor garage. While this element is not original nor evident in any earlier photographs, it will provide a higher level of amenity for the future use of the place, is in a sympathetic style and is completely reversible.
- The proposed development remains appropriately sympathetic to the character of the surrounding streetscape. Principal street frontages employ traditional gabled roof forms, face-brick facades and vertical proportions.
- The development is modestly scaled such that it does not overwhelm or detract from the character of the Town Centre HCA.
- The proposed scheme includes a pedestrianised plaza, open to Rouse Street and an extended awning, encouraging appropriate street activation consistent with that along Rouse Street. Dominant forms of

surrounding development include single storey gable roof profiles and strong horizontal forms, often as continuous street level awnings.

- The principal frontages reflect existing fine grain detail seen along Rouse Street, ensuring the new design is well-integrated into the character of the Town Centre. The proposed scheme responds appropriately to the existing character of the Town Centre HCA whilst remaining suitably contemporary.
- The subject proposal will have no adverse visual or physical impacts on any listed heritage items located in the vicinity of the site.
- While it is beyond the scope of this report to assess the archaeological potential of the site or the potential archaeological impacts of the proposal, we note that the existing concrete slab in the former motor garage is being retained, and therefore the sub surface area for this building is not being disturbed.

Overall the proposal is considered to be a highly sensitive and responsive development to both the character of the local area and to the former motor garage building. For the reasons stated above, the proposed works are recommended for approval from a heritage perspective having regard to the proposed recommendations below.

RECOMMENDATIONS

- Prior to the issue of a Construction Certificate, a Photographic Archival Recording should be undertaken of the former motor garage building and should be prepared in accordance with the Heritage NSW's Guidelines for 'Photographic Recording of Heritage Items Using Film or Digital Capture'.
- A Heritage Interpretation Strategy should be prepared for the site by a suitably qualified heritage consultant as a condition of the DA consent. The Heritage Interpretation Strategy should identify significant themes and narratives for interpretation, as well as identifying locations, media, and indicative content for interpretation. Interpretation should be developed throughout detailed design and construction phases in conjunction with the project architect and other specialists as required.

  There are opportunities for heritage interpretation for the former motor garage use through fabric conservation, signage and general informative interpretation devices. It is noted that a lot of fixtures and historical elements were auctioned off when the dealership closed in 2020, which is disappointing as these would have contributed meaningfully to the comprehensive interpretation of the former motor garage use. There is also an opportunity to interpret Sexton & Green's other early 20th Century enterprise, the Tenterfield Pictures/Lyceum Theatre, considering that the subject proposal includes provision of a new cinema complex.
- The works should include conservation works for the principal parapeted façade to ensure retention of the rendered ashlar lines existing here. A heritage consultant should be consulted with regards to final detailing of the design to ensure that any impacts are appropriately managed.

1. INTRODUCTION

1.1. BACKGROUND

This Heritage Impact Statement (HIS) has been prepared by Urbis Pty Ltd on behalf of Shun Hung Pty Ltd (the applicant) to accompany a Concept Development Application (DA) lodged to Tenterfield Shire Council (Council) at 148 Rouse Street, Tenterfield (the site).

The application includes a concept proposal for a proposed cinema and mixed-use development and a detailed proposal for the construction of the Stage 1 buildings and associated works. The proposal also includes minor works to establish a pedestrian connection between the site and the adjoining property at 162 Rouse Street Tenterfield. Stage 2 of the development, comprising the construction and operation of the child care centre, pharmacy, medical centre, café and bowling alley and signage, will be subject to a subsequent detailed DA.

The proposal aligns with Council's strategic vision to enhance business and lifestyle opportunities whilst creating infrastructure to help support industry and the community.

The subject site is not a listed heritage item. It is, however, located within the boundaries of the locally significant *Town Centre Heritage Conservation Area* (C3), under Schedule 5, Environmental Heritage of the *Tenterfield LEP 2013*. This HIS has been prepared to determine the potential heritage impact of the proposed works on the conservation area.

1.2. SITE LOCATION

The subject site is located at 148 Rouse Street, Tenterfield within the local government area (LGA) of Tenterfield.

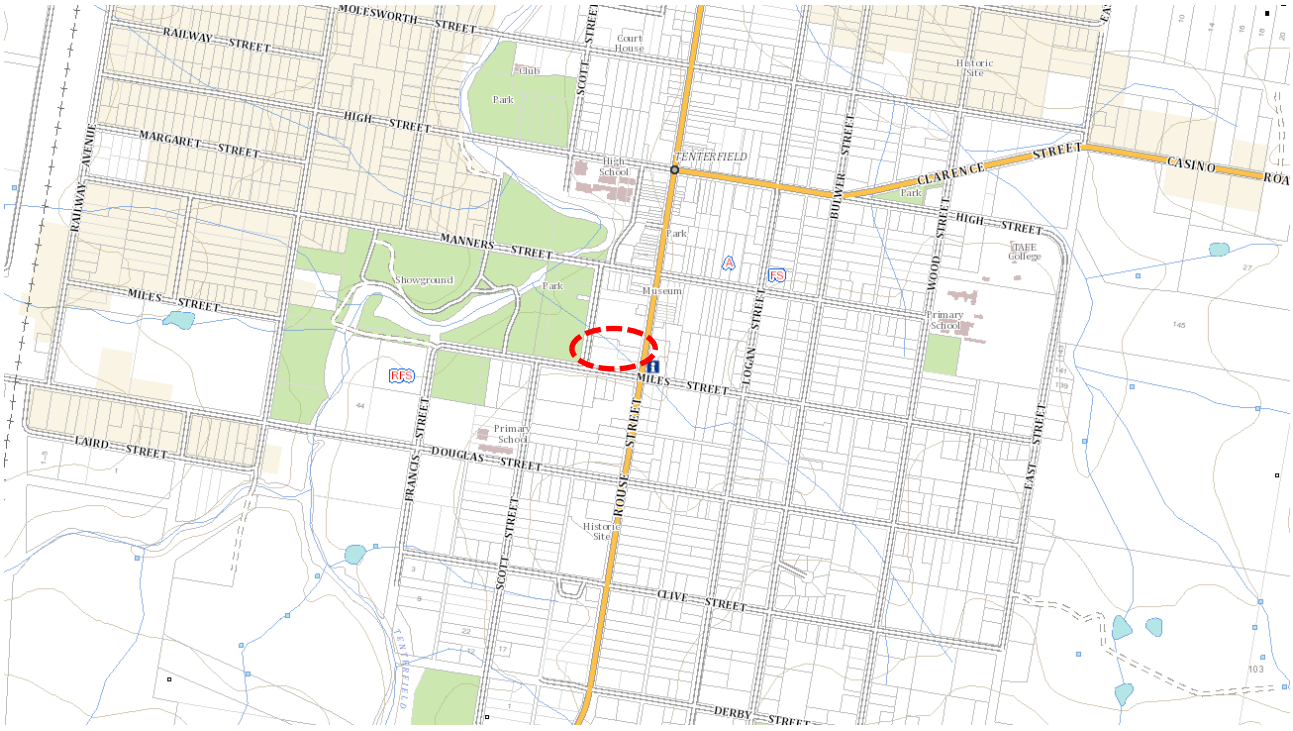

Figure 1 Locality map with the subject site outlined in red.

Source: SIX Maps 2022

1.3. HERITAGE LISTING

The subject site is not a listed heritage item. It is, however, located within the boundaries of the locally significant *Town Centre Heritage Conservation Area* (C3), under Schedule 5, Environmental Heritage of the *Tenterfield LEP 2013*.

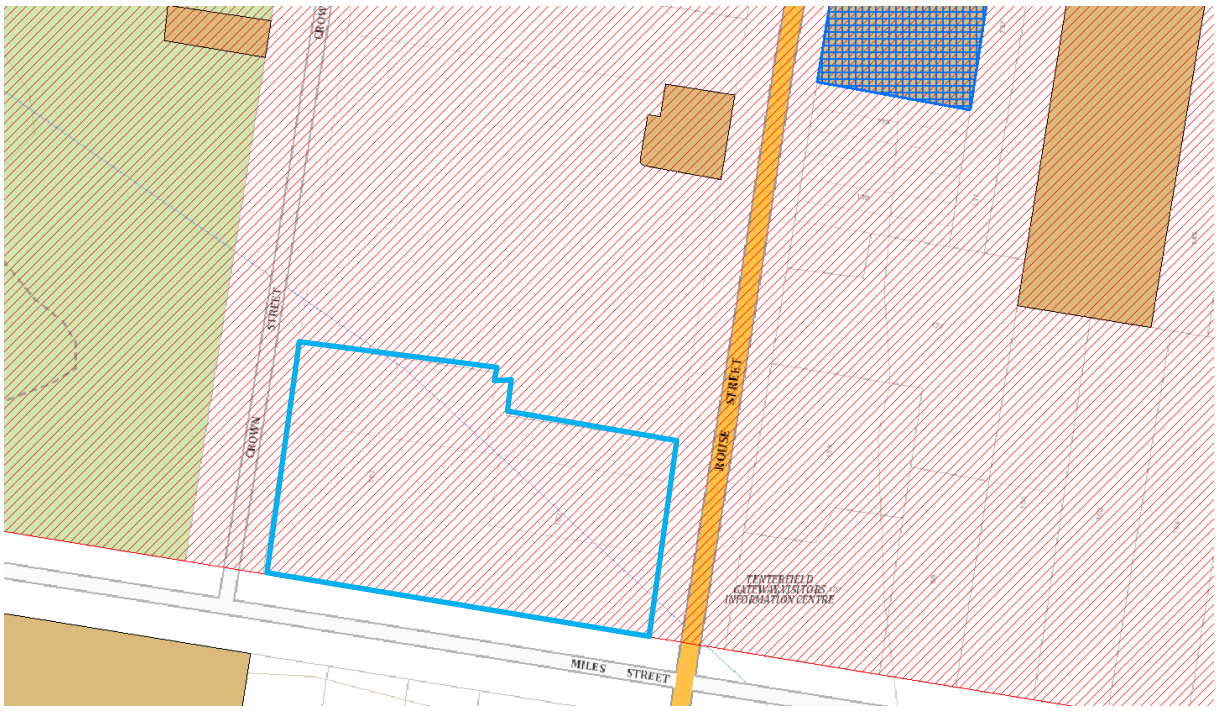

Figure 1 Extract of heritage map with the subject site outlined in blue.

Source: NSW Planning Portal, 2021

1.4. METHODOLOGY

This Heritage Impact Statement has been prepared in accordance with the Heritage NSW guidelines 'Assessing Heritage Significance', and 'Statements of Heritage Impact'. The philosophy and process adopted is that guided by the Australia ICOMOS Burra Charter 1999 (revised 2013).

Site constraints and opportunities have been considered with reference to relevant controls and provisions contained within the *Tenterfield Local Environmental Plan (LEP) 2013* and the Tenterfield Development Control Plan (DCP) 2014.

1.5. AUTHOR IDENTIFICATION

The following report has been prepared by Annabelle Cooper (Heritage Consultant) and Ashleigh Persian. (Associate Director Heritage). Unless otherwise stated, all drawings, illustrations and photographs are the work of Urbis.

1.6. THE PROPOSAL

The application is lodged as a Concept DA and comprises a concept proposal for a mixed-use development and a concurrent detailed proposal for the Stage 1 development and associated works. The proposal is described in more detail below:

- Concept proposal (site masterplan) for a mixed-use development including:
  - building envelopes and land use for the following new buildings:
    - medical centre
    - pharmacy
    - bowling alley
    - child care centre
    - cinema

- cafés

– car parking and vehicular access points

– through site pedestrian connection from the car park to the existing Henry Parks shopping centre north of the site.

- Detailed proposal (Stage 1) for construction and operation of the first phase of the development including:

  – demolition of existing office, repair workshop, office and hardstand on the site in accordance with the demolition plan.

  – alterations and additions to the main workshop building adjacent to Miles Street for use as a four screen cinema and café.

  – construction of car park (to service the entirety of the completed development).

  – a through-site pedestrian connection from the car park through to the shopping centre. This will require the creation of an opening in the southern wall of the shopping centre at 162 Rouse Street and the installation of a motorised sliding door.

  – landscaping throughout the site.

Stage 2 of the development, comprising the construction and operation of the child care centre, pharmacy, medical centre, café and bowling alley and signage, will be subject to a subsequent detailed DA. Stage 2 requires input from external operators of the medical centre and childcare centre. It is intended that the detailed DA for Stage 2 will be lodged in early 2022 and that construction of Stage 2 will follow shortly after the completion of Stage 1.

Note: external works to the site including a building awning to Rouse Street, public domain improvements and landscaping, comprising removal and replacement of street trees along Miles Street and Rouse Street, will be undertaken as part of a separate Section 138 Roads Act approval to Council.

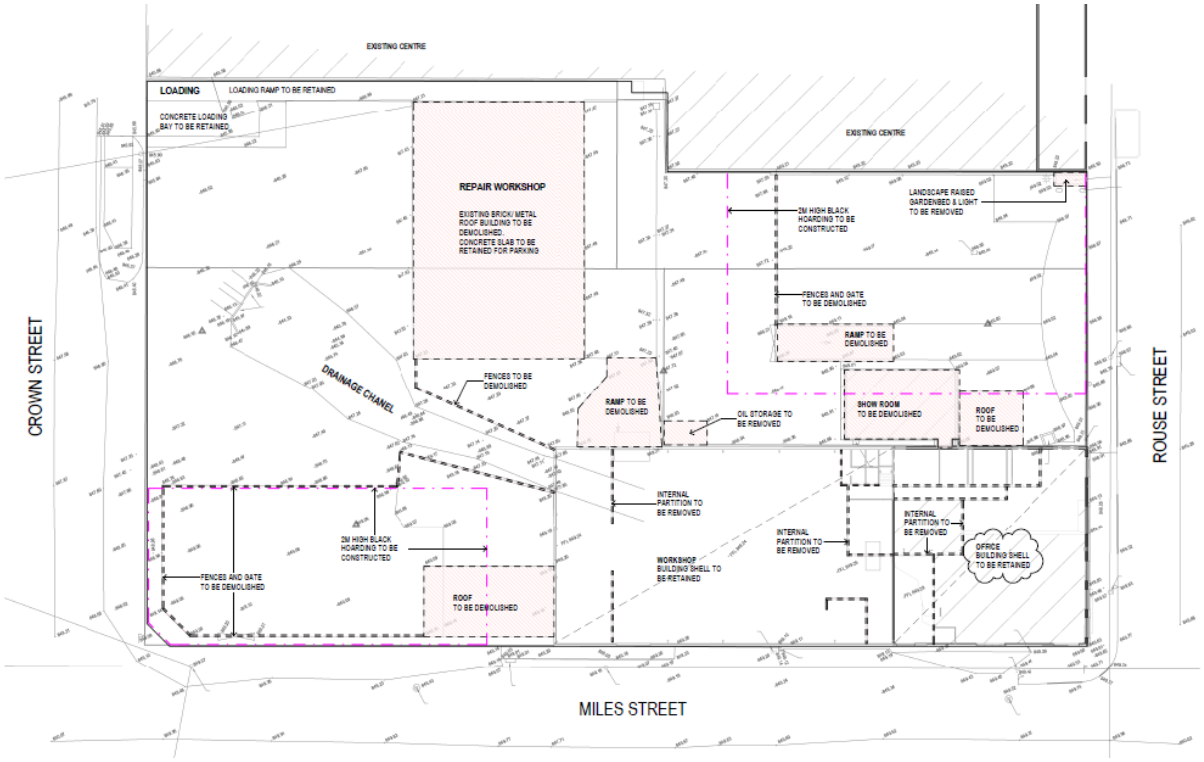

Figure 1 Extract of proposed plans – existing and demolition plan

Source: MGA 2021

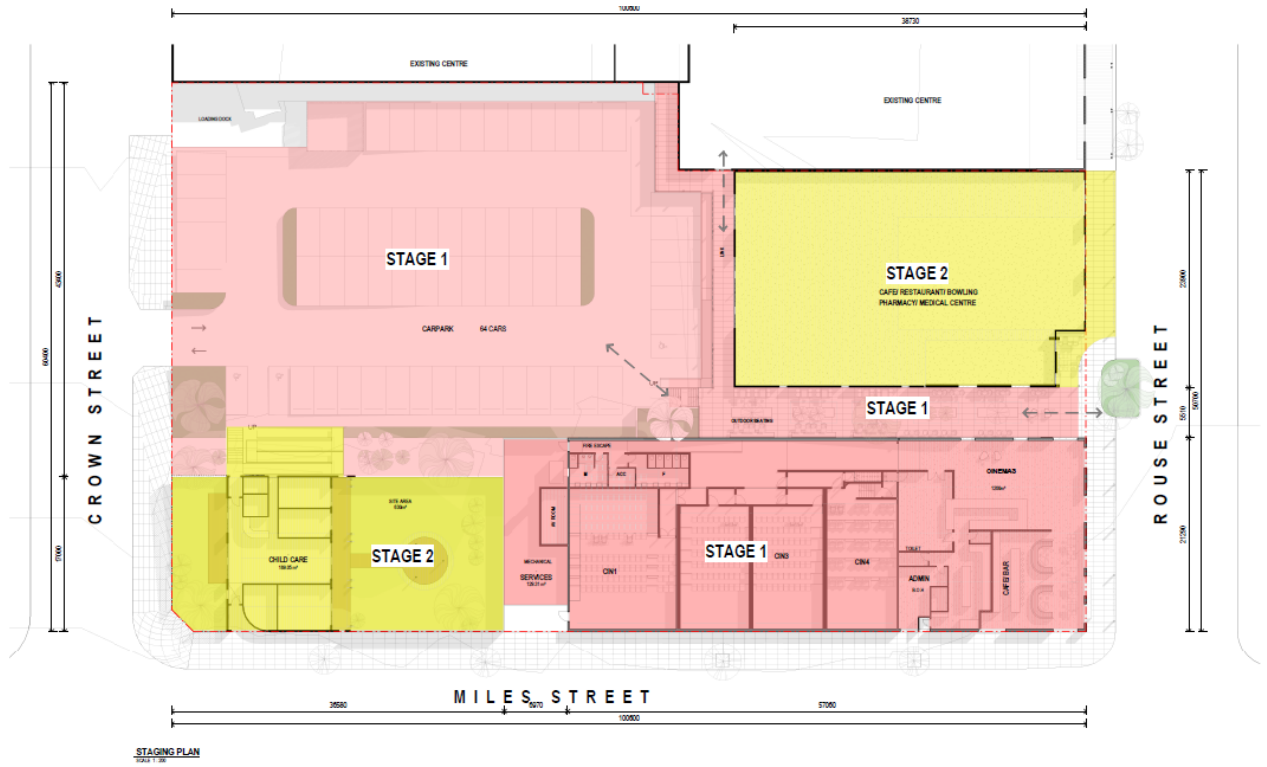

Figure 1 Extract of proposed plans – staged plans

Source: MGA 2021

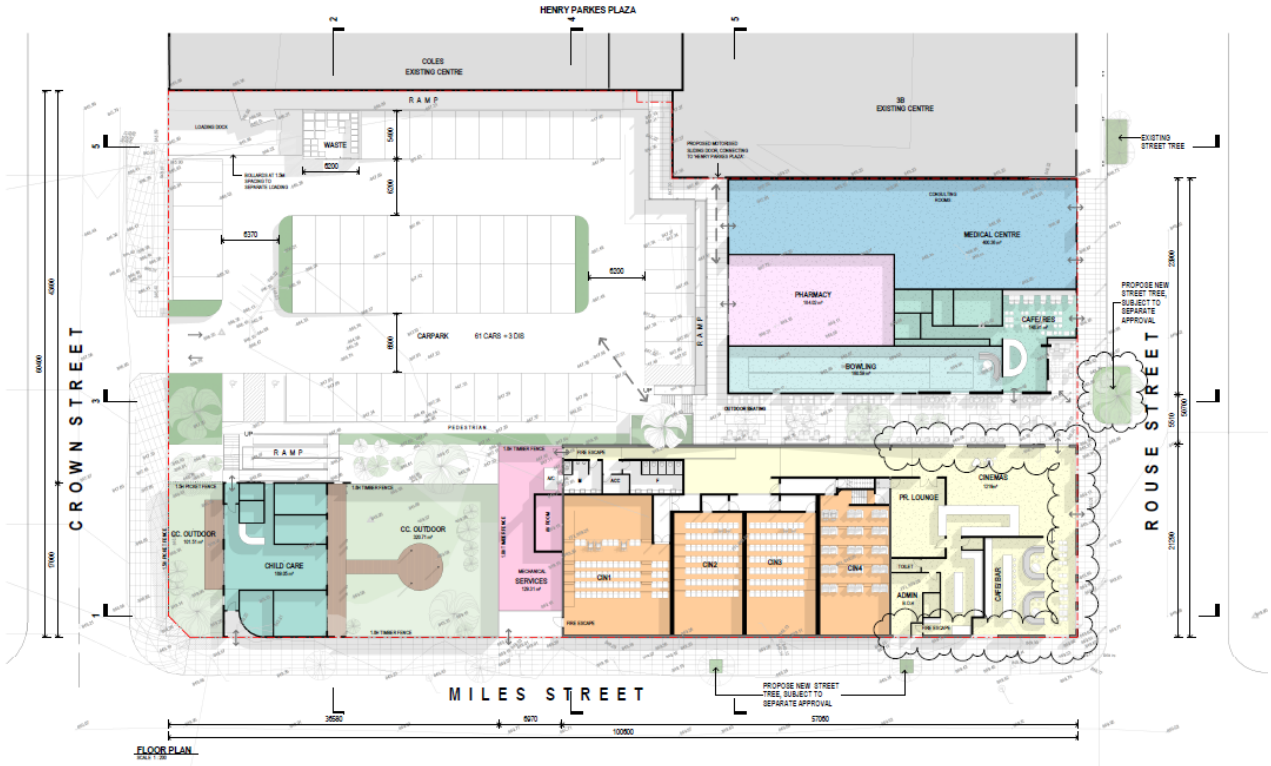

Figure 1 Extract of proposed plans – ground floor

Source: MGA 2021

Figure 1 Extract of proposed plans – proposed render

Source: MGA 2021

Figure 1 Extract of proposed plans – proposed render

Source: MGA 2021

2. SITE DESCRIPTION

2.1. SITE DESCRIPTION

The site to be redeveloped is located at 148 Rouse Street, Tenterfield, with minor works proposed to the adjacent site at 162 Rouse Street, Tenterfield to enable a pedestrian connection to be created between the two properties.

The key features of the site are summarised in the table below. Due to the limited nature of works proposed to 162 Rouse Street a reference to the 'site' within this SEE should be interpreted as referring only to 148 Rouse Street Tenterfield, unless specified otherwise.

Table 1 Site Description

Feature	**Site Description**	
Street Address	148 Rouse Street, Tenterfield	162 Rouse Street, Tenterfield*
Legal Description	Lot A in Deposited Plan 150057 Lot B in Deposited Plan 150057 Lot 1 in Deposited Plan 516621 Lot 33 in Deposited Plan 1138201	Lot 32 in Deposited Plan 1138201* Works to this property consist of the installation of a glass sliding door to provide a pedestrian connection between the neighbouring sites. Owner's consent has been obtained and is supplied with the DA.
Site Area	5,620m^2	8,132m^2
Site Dimensions	51m to Rouse Street 98m to Miles Street 58m to Crown Street	69m to Rouse Street 79m to Crown Street
Easements and Restrictions	148 Rouse Street provides vehicle access to the adjacent shopping centre (162 Rouse Street). The site easements include: ▪ 5m wide loading easement (A) ▪ 2.24m wide and variable width right of carriageway (B) ▪ Drainage easement 2.24m wide and variable width through the approximate centre of the site.	Works to this property will not impact on any existing easements or restrictions.
Site Topography	The land slopes gently from the south and east to the north west of the Rouse Street.	
Hydrology	Tenterfield Creek is approximately 160m to the north-west of the site. A tributary of Tenterfield Creek runs through the site from the south-eastern corner to the north-western corner. The tributary is underground in the	

Feature	Site Description
	south eastern corner of the site and appears as an open drain on the western portion of the site. This drain collects stormwater for the site and surrounding areas.

Figure 2 Aerial photograph

2.2. EXISTING DEVELOPMENT

The site currently accommodates a Sexton Green car dealership, within a single storey masonry building . Adjoining the car dealership is a warehouse building (steel framework and corrugated sheet metal).

The masonry building appears to date from the early to mid-twentieth century however has been highly modified to facilitate contemporary development. The masonry facades front Rouse Street to the east and the eastern end of Miles Street to the south. The masonry portion of the site features large, modified glass windows and fixed signage associated with the car dealership. The exterior of the building has been painted grey. The building has been stripped of period detail and does not reflect well the characteristics of a particular period or style.

The interior of the building has been highly modified. It comprises a large open space which functions as a show room and an adjunct office space. The interior fabric is entirely contemporary. The warehouse building, attached to the rear of the above is not original to the masonry structure and is an entirely contemporary structure. The warehouse building is currently used as a workshop and for storage equipment associated with the tenancy. The subject site is located on the very southern fringe of the Tenterfield *Town Centre Heritage Conservation Area* which features both contemporary and traditional development. The site forms part of a large, low-scale contemporary development.

At grade car parking is provided in the middle of the site from two vehicular crossovers off Rouse Street.

At the northern boundary of the site to Crown Street there is a loading bay and loading ramp that serve the adjacent Henry Parks shopping centre at 162 Rouse Street.

The site is flat with multiple vehicular access points. There are two vehicular crossovers from Rouse Street to access the at grade car park. There is also a vehicle service entry off Miles Street. Access to the loading dock is provided from Crown Street at the rear of the site.

Figure 3 View to corner of Rouse Street and Miles Street - workshop office building to be demolished

Source: Google streetview

Figure 4 Western elevation of subject site (Rouse Street).

Figure 5 Western elevation of subject site (Rouse Street).

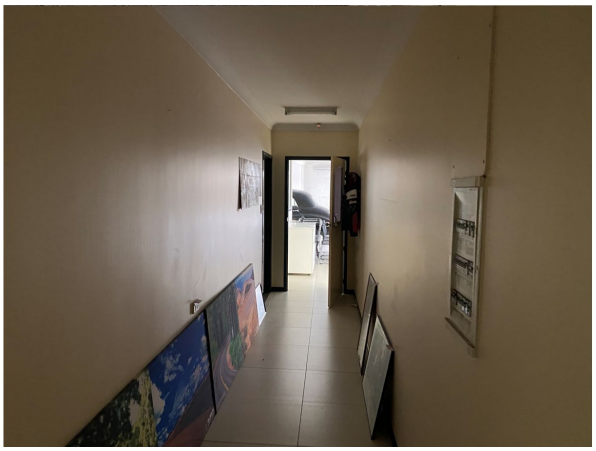

Figure 6 Interior of subject site.

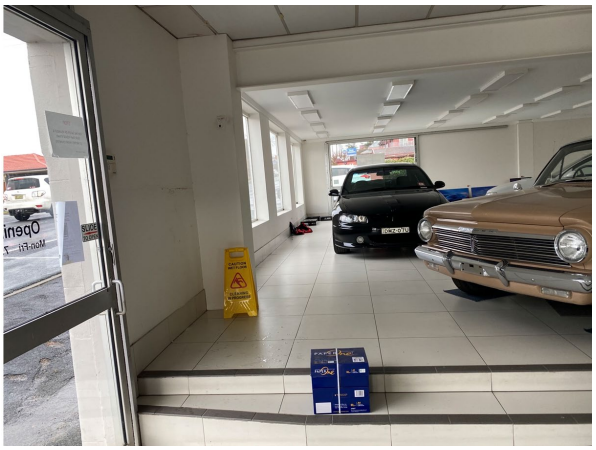

Figure 7 Interior of subject site (car showroom).

Figure 8 Interior fabric of subject site.

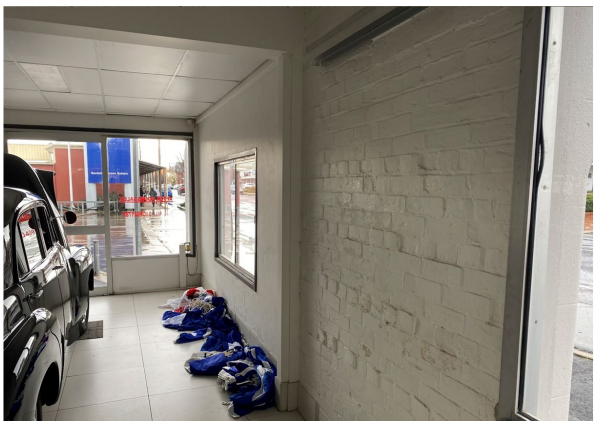

Figure 9 Interior fabric of subject site (car showroom).

Figure 10 Interior fabric of subject site (car showroom).

Figure 11 Interior fabric of rear warehouse.

Figure 12 Interior of rear warehouse.

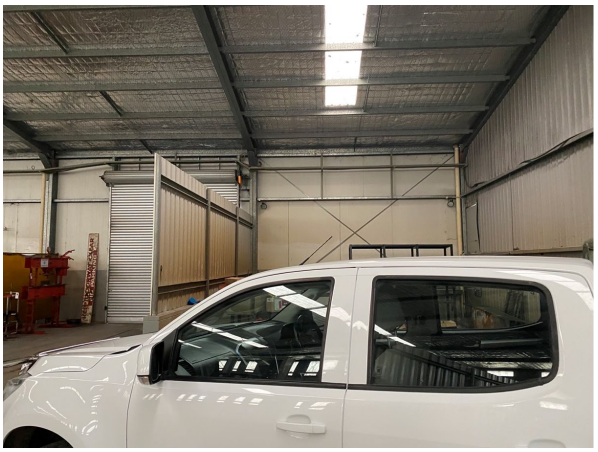

Figure 13 Interior of rear warehouse.

Figure 14 Interior fabric of rear warehouse.

Figure 15 Interior fabric of rear warehouse.

Figure 16 Interior fabric of rear warehouse.

Figure 17 Interior rear of car showroom.

Figure 18 Interior fabric of car showroom.

Figure 19 Interior fabric of car showroom.

Figure 20 Interior fabric of car showroom.

Figure 21 Interior fabric of car showroom.

2.3. LOCALITY CONTEXT

The site is in Tenterfield, a regional town within the New England region of NSW. Tenterfield is located on the New England Highway approximately 275 kilometres north-west of Coffs Harbour.

The site is within the historic Tenterfield Town Centre which provides commercial services including retail, cafes, hotels and civic functions. The broader context to the town consists of low density residential and rural land uses. Surrounding land uses consist of:

- **North**: the site adjoins an existing commercial development known as the Henry Parkes Plaza that contains a Coles supermarket, Target, liquor store and discount store. Further north of the site are a variety of local commercial and retail stores including a Mitre 10 hardware store, antiques shop, bakery and newsagent.
- **East**: land to the east is comprised of the Tenterfield visitor information centre, a service station, hotel and the Sir Henry Parkes School of Arts. Further east of the site is residential development.
- **South**: to the south is a motel and the Our Lady of Perpetual Succour Church. Further south of the site is residential development.
- **West**: Church Street Park, Tenterfield Showground and caravan park lies to the immediate west of the site. Further west of the site is residential development.

3. HISTORICAL OVERVIEW

3.1. TENTERFIELD TOWN CENTRE HERITAGE CONSERVATION AREA

The following historical account has been directly reproduced from the State Heritage Inventory form for the *Town Centre Heritage Conservation Area*.

> *A number of Aboriginal groups occupied the Tenterfield area at the time of European contact, including the Badjalang people (Bundjalung), from the headwaters of the Clarence and Richmond Rivers to Tabulam and Baryugil; Kitabal (Githabul, a dialect group of the Bundjalung) whose territory included Urbenville, Woodenbong and Tooloom, south to Tabulum and Drake; and the Ngarabal, people who traditionally occupied the land from Bolivia to Stonehenge. The Jukambal people were known for historic seasonal movement through the shire.*
>
> *European exploration to the region started in the early 1800s dominated by major pastoralists with land controlled by Governor Macquarie.*
>
> *By 1836 the first squatting licences were issued and the 1862 Land Acts, then enabled the free selection of unalienated land by selectors. In 1841 Sir Stuart Donaldson was running 18,000 sheep on a property that he named Tenterfield Station, after a family home in Scotland. Donaldson was the first premier of NSW and made biannual trips to Tenterfield to inspect his holdings there, which covered 100,000 acres (400 km2) of unfenced land. Early homesteads often included a complex of buildings with their own butchers, bakers and blacksmiths.*
>
> *The township was gazetted in October 1851 with allotments being sold in March 1854. In 1858 gold was discovered at Drake (Fairfield) and shortly afterwards at Timbarra and Boonoo Boonoo. During 1859 an AJS Bank opened and an Anglican Church was built the following year. In the 1860s the Tenterfield Chronicle was published; the district court was established; the building of a hospital commenced and a public school was opened. In 1870 the population was less than 900, but the town had five hotels, a school of arts and three churches. In November 1871 town incorporated The existing Tenterfield Post Office was constructed in 1881. Closer settlement occurred during the 19th century with the Returned Soldiers Settlement Act 1916 which allowed larger estates to be cut up for smaller family farms.*
>
> *A network of crown villages and reserves was laid out by Government surveyors, although some never developed beyond early mining settlements. Evidence of the gold, silver, tin, silica and arsenic mining history of the region is evident in many locations. The completion of the railway line to Tenterfield in 1886 boosted the development of Tenterfield as a regional centre and the development of smaller villages on the route such as Bolivia and Sandy Flat.*
>
> *Early industries were developed for processing of agricultural products for local use and economic gain. Meatworks, flour mills, and bakeries are still evident from these early days whilst other processes such as brickworks and timber mills may now yield only archaeological evidence.*
>
> *The township of Tenterfield boomed between 1870s and 1930s, with the development of the School of Arts, several large hotels, banks and a majestic Post Office. A Victorian complex of police station, courthouse and gaol were added to the town. The town is well known for its association with Henry Parkes and the foundation of the Federation of Australia movement. The development of accommodation, commerce, education and health, religion, and leisure are all illustrated by a variety of original buildings and sites throughout the area. The impact of politics and economic tariffs by Queensland, triggered developments such as the tobacco industry from the 1930s.*
>
> *Tenterfield also has strong association with defence through early recruiting and cavalry training. During World War 11, Tenterfield was a location for large military encampments and evidence still exists of some significant structures such as the Tank Traps and several drill halls.*

Low growth during the post war period saw retention of much of the early building fabric which is now integral to the built character and aesthetic appeal of the town today. Growing interest and awareness of heritage values has resulted in a renewed investment and confidence which is promoting these values in a very positive way for economic benefit, and growth in tourism.[1]

The following historic photographs of the general location have been sourced from various archives.

Figure 22 "Main street through Tenterfield with Queensland's ranges in the background", part of *Photograph Album from District Surveyor A. Dewhurst's Diary of 1887.*

Source: John Oxley Library, State Library of Queensland

Figure 23 "View along Rouse Street c. 1895", part of *At Work and Play – images in rural life in NSW 1880-1940.*

Source: State Library of New South Wales

Figure 24 "Rouse Street looking south, Tenterfield", part of *At Work and Play – images in rural life in NSW 1880-1940.*

Source: State Library of New South Wales

Figure 25 "Rouse Street looking north-west, Tenterfield c.1870", part of *At Work and Play – images in rural life in NSW 1880-1940.*

Source: State Library of New South Wales

[1] Heritage NSW Inventory form for *Tenterfield Town Centre Heritage Conservation Area,* History.

Figure 26 “Rouse Street, looking south from near High Street, Tenterfield”,(c.1910), part of *At Work and Play – Images in rural life in NSW 1880-1940.*

Source: State Library of New South Wales

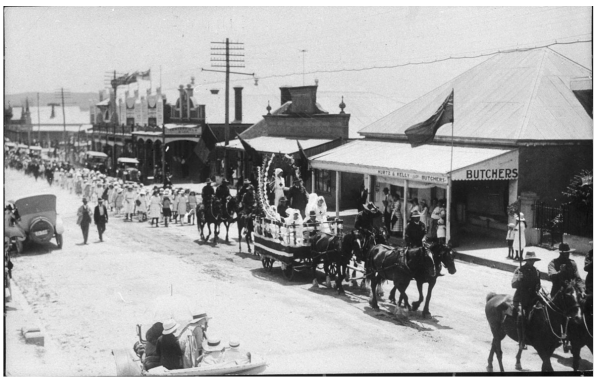

Figure 27 “Red Cross Queen procession in Rouse Street, Tenterfield”, part of *At Work and Play – Images in rural life in NSW 1880-1940.*

Source: State Library of New South Wales

3.2. SUBJECT SITE HISTORY

An historical overview was provided to Urbis which was prepared by Deborah Wray of Clarence Heritage for the Heritage Referral for DA 2021-132 dated November 2021. We have reviewed this Heritage Referral and provide the following brief historical overview in response.

The subject site at 148 Rouse Street Tenterfield has been used as a motor garage and motor sales depot since the 1920s. The previous use of the site before the 1920s is not known and historical information available does not provide any conclusive evidence to identify previous uses or improvements, if any.

Around the 1920s, partners Sexton and Green established a motor garage on the subject site. The partners appeared to be well known proprietors in town, also owning the Lyceum Theatre (also known as the Tenterfield Pictures) in the 1920s.[2]

Their motor garage establishment at the subject site was known as 'Sexton & Green’, and appears in advertisements from as early as 1927, stating that the establishment was a dealer for a range of motor vehicles of the time, including General Motors, Buick, Chevrolet, Pontiac and Cadillac, amongst many others. The establishment also provided general motor engineering and maintenance services including tyres, tubes and oils.[3]

[2] 1921 'Advertising', The Sun (Sydney, NSW : 1910 - 1954), 16 January, p. 22. , viewed 18 Jan 2022, http://nla.gov.au/nla.news-article221433850; 1920 'SUBURBAN AND COUNTRY THEATRES.', The Sun (Sydney, NSW : 1910 - 1954), 19 December, p. 22. , viewed 18 Jan 2022, http://nla.gov.au/nla.news-article222659299

[3] 1927 'Advertising', Freeman's Journal (Sydney, NSW : 1850 - 1932), 14 July, p. 19. , viewed 18 Jan 2022, http://nla.gov.au/nla.news-article116751946

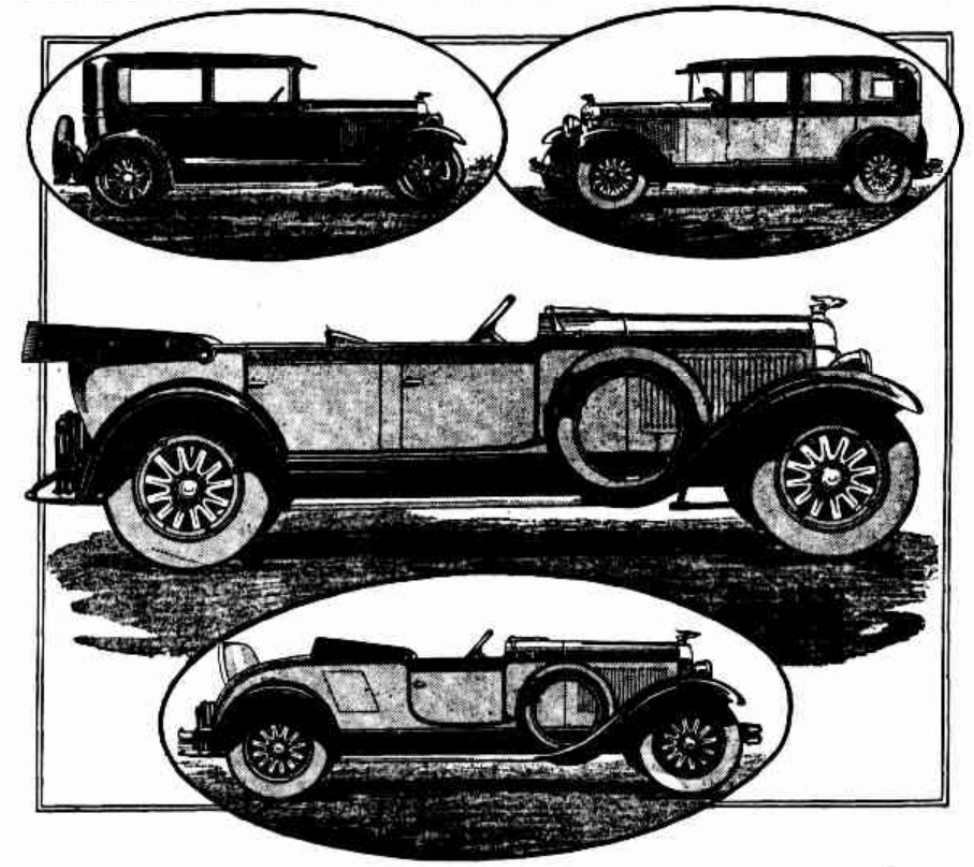

Figure 28 Extract from a 1927 advert for the new Oakland's car listing Sexton & Green as a distributor

Source: 1927 'Advertising', The Sydney Morning Herald (NSW : 1842 - 1954), 9 December, p. 9. , viewed 18 Jan 2022, http://nla.gov.au/nla.news-article16425334

Clarence Heritage have provided Urbis with a historic photograph which wis purported to be the subject site in the 1920s, showing the original Sexton and Green motor garage. No signage beyond 'Motor Garage' is evident in the image, however the double gable roof form is compatible with the existing double gable roof form of the current building on the site. The cars visible in the photograph below do indicate that the photo was taken some time around the 1920s.

Figure 29 Photograph supplied by Clarence Heritage which is purported to be the subject site in the 1920s with the original motor garage evident

Source: Clarence Heritage, Heritage Referral p.7, citing K. Halliday as source

The motor garage had a new parapeted façade constructed sometime during the interwar period. The new

façade was of a rendered brick construction with a central raised parapet and is consistent with the style of façade seen on many interwar motor garages in NSW, albeit a stripped back example.

Clarence Heritage have provided Urbis with a historic photograph which wis purported to be the subject site in the 1950s, showing the Sexton and Green motor garage. The cars visible in the photograph below do indicate that the photo was taken some time around the 1950s, and confirms that the site provided pumped petrol services to Rouse Street.

Figure 30 Photograph supplied by Clarence Heritage which is purported to be the subject site in the 1950s

Source: Clarence Heritage, Heritage Referral p.8, citing K. Halliday as source

Clarence Heritage have provided Urbis with a historic photograph (below) which is purported to be the subject site also in the 1920s, showing the new interwar façade. While Urbis agree that the photograph is of the subject site and provides good evidence of the former building condition, we contend that this photograph dates to circa 1970s. The photograph shows that the site was being operated as a Holden motor garage and dealership at the time and was advertising the sale of the Statesman and Torana models, which were only manufactured between 1971-84 and 1969-79 respectively. Together with the contemporary street lighting visible in the photograph, this confirms that the photograph dates from at least the c.1970s.

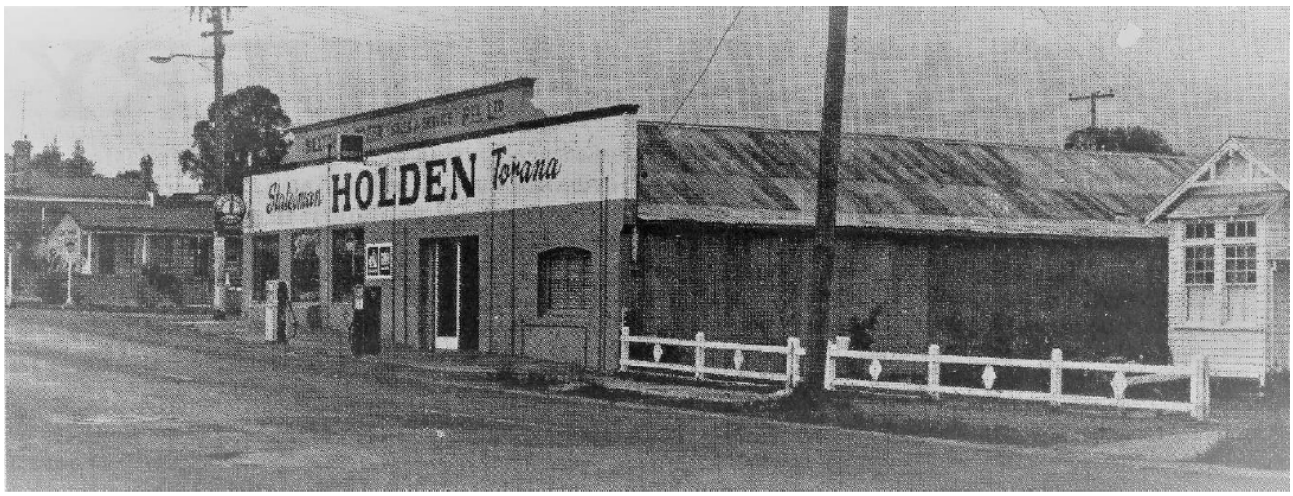

Figure 31 Photograph supplied by Clarence Heritage showing subject site in the c.1970s

Source: Clarence Heritage, Heritage Referral p.7, citing K. Halliday as source

The subject site appears to have continued in operation as Holden dealership until 2020 when its closure was announced, approximately 100 years after first opening as a motor garage. The dealership's stock and equipment was auctioned off by Grays Auctioneers, including historic fixtures such as a 1950s General Motors sign which attracted high bids at the auction.[4]

Figure 32 Mid century General Motors Dealership sign which was auctioned off after closure

Source: Unique Cars Magazine 2021, viewed online at https://www.tradeuniquecars.com.au/news/2108/old-holden-dealership-sells-up

[4] Unique Cars Magazine 2021, viewed online at https://www.tradeuniquecars.com.au/news/2108/old-holden-dealership-sells-up

4. HERITAGE SIGNIFICANCE

4.1. WHAT IS HERITAGE SIGNIFICANCE?

Before making decisions to change a heritage item, an item within a heritage conservation area, or an item located in proximity to a heritage listed item, it is important to understand its values and the values of its context. This leads to decisions that will retain these values in the future. Statements of heritage significance summarise the heritage values of a place – why it is important and why a statutory listing was made to protect these values.

4.2. SIGNIFICANCE ASSESSMENT

The Heritage Council of NSW has developed a set of seven criteria for assessing heritage significance, which can be used to make decisions about the heritage value of a place or item. There are two levels of heritage significance used in NSW: state and local. The following assessment of heritage significance has been prepared in accordance with the 'Assessing Heritage Significance' guides.

Table 2 Assessment of Heritage Significance

Criteria	Significance Assessment
A – Historical Significance *An item is important in the course or pattern of the local area's cultural or natural history.*	The subject site has a degree of historical significance associated with its long running (c.100 years) operation as a motor garage and dealership. This historical association can be demonstrated in the typical interwar motor garage façade which remains, albeit this façade is a pedestrian example of the typology and has been modified.
B – Associative Significance *An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history.*	The subject site is associated with Messrs. Sexton and Green who established the motor garage business on the site in c.1919-20. Sexton and Green were both noted proprietors in the town having also owned the original Tenterfield Pictures / Lyceum Theatre site. The subject motor garage retained the 'Sexton & Green' branding until its closure in 2020.
C – Aesthetic Significance *An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.*	The subject building is a highly modified interwar former motor garage with limited creative or technical innovation or achievement. The principal façade comprises a pedestrian example of an interwar motor garage parapeted façade of no distinguishing heritage value. Internally, the site has been highly modified over time due to extensions and refurbishments to meet the changing aesthetic demands of the industry, and limited original fabric remains intact or visible.
D – Social Significance *An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons.*	The site may hold a degree of social significance associated with the long term function as a motor garage and dealership where the local community purchased and maintained their motor vehicles. This significance is likely to be associated with the

Criteria	Significance Assessment
	business owners, operators and staff, and associated with a functional amenity, rather than an attachment to the existing fabric on the site. Notwithstanding, a quantitative assessment of the potential social significance of the site has not been undertaken and is not considered warranted.
E – Research Potential *An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history.*	The subject site contains a pedestrian and highly modified example of an interwar former motor garage, which in our opinion does not demonstrate the potential to yield substantial new scientific information. No historical evidence available suggests that there were previous structures built on the site prior to 1920, and a full archaeological assessment is beyond the scope of this report and has not been undertaken.
F – Rarity *An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history*.	The subject site contains a pedestrian and highly modified example of an interwar former motor garage. Motor garages like these are not considered to be rare in New South Wales. The subject site is not a rare example of the typology.
G – Representative *An item is important in demonstrating the principal characteristics of a class of NSWs (or the local area's):* ▪ *cultural or natural places; or* ▪ *cultural or natural environments.*	The subject site contains a pedestrian and highly modified example of an interwar former motor garage. It is not considered to be a fine nor intact example of the typology. It is considered to be generally representative of simple interwar motor garages more broadly and of the evolution of motoring in New South Wales.

4.3. STATEMENTS OF SIGNIFICANCE

4.3.1. Subject Site

The subject site has been assessed against the relevant criteria for assessing heritage significance as outline by Heritage NSW and the Heritage Council of New South Wales. It is concluded that the subject site does not meet the requisite threshold for individual heritage listing under any of the criteria.

The subject site contains a pedestrian and highly modified example of an interwar former motor garage. It is not considered to be a fine nor intact example of the typology. It is considered to be generally representative of simple interwar motor garages more broadly and of the evolution of motoring in New South Wales. The subject site is associated with Messrs. Sexton and Green who established the motor garage business on the site in c.1919-20. Sexton and Green were both noted proprietors in the town having also owned the original Tenterfield Pictures / Lyceum Theatre site. The subject site has a degree of historical significance associated with its long running (c.100 years) operation as a motor garage and dealership.

4.3.2. Town Centre Heritage Conservation Area

The following statement of significance has been reproduced from the State Heritage Inventory form for the *Town Centre Heritage Conservation Area*.

Tenterfield Heritage Conservation Area is a substantially intact, representative and well preserved example of a civic, commercial and residential precinct which demonstrates rarity locally.

Tenterfield evolved in response to both the physical characteristics of its location, and to the broader historical patterns and events that have shaped the development of New South Wales and its position near the Queensland border. As the post war growth of the town has been very modest, it has retained much of its historic character and fabric. It is assessed as having historical, associative, social and aesthetic cultural significance.

It retains a core of buildings with fine examples of commercial, governance, education, ecclesiastical, domestic and social development dating from the 1850s to the 1950s which demonstrate confidence in the development of a township in the northern tablelands during this period.

The precinct contains significant street vistas and spaces radiating from the main intersection of Rouse and Manners Streets and includes the historically significant town 'square' open space of Bruxner Park. The buildings, streetscapes and other elements, open spaces and tree plantings are enhanced with vistas and views of the Great Dividing Range and Mount Mackenzie. The main street precinct is anchored by four significant, two storey buildings on the corners of Manners and Rouse Streets and punctuated by other notable larger scale buildings along the main commercial frontage. Tenterfield Creek runs parallel to the western side of the main street, with open areas set aside for public recreation.

The residential streets are significant for retaining a predominance of early dwellings on large allotments with some later examples of infill from the post war period, some of which are significant in demonstrating the evolution of styles and fashion of architecture.

The whole precinct is significant for the collective values of low scale buildings of traditional materials and colours, with generous landscaped setbacks, original and contributory fences, some early remnant stone curbing, avenue plantings, and private gardens with early plantings of historical and aesthetic interest. The whole place is a living cultural landscape with high integrity and with few exceptions, all the elements of the precinct contribute to the whole in a significant way. [5]

[5] Heritage NSW Inventory form for *Tenterfield Town Centre Heritage Conservation Area,* Statement of Significance.

5. IMPACT ASSESSMENT

5.1. GENERAL IMPACT ASSESSMENT

This statement of heritage impact has been prepared to assist the consent authority in determining the proposal's potential impact on the heritage significance of the *Town Centre Heritage Conservation Area (C3).* This assessment has been prepared in accordance with the NSW Heritage Branch guideline 'Assessing Heritage Significance '(2001) with reference to the relevant heritage provisions contained in the *Tenterfield LEP 2013* and the Tenterfield Development Control Plan 2014. The philosophy and process adopted is that guided by the Australia ICOMOS Burra Charter 1999 (revised 2013).

The subject site, located at 148 Rouse Street Tenterfield is not a listed heritage item under Schedule 5, Environmental Heritage of the *Tenterfield LEP 2013*. It is, however, located within southern portion of the *Town Centre Heritage Conservation Area*. The southern fringe of the Town Centre HCA largely comprises contemporary development including the Coles building to the north and the information centre to the east, which although appearing to be of a referential Federation style, is a contemporary development.

The *Town Centre Heritage Conservation Area* is listed for its "*significant street vistas and spaces radiating from the main intersection of Rouse and Manners Streets and includes the historically significant town 'square' open space of Bruxner Park. The core buildings which make a contribution to the character of the conservation area are noted as being fine examples of commercial, governance, education, ecclesiastical, domestic and social development dating from the 1850s to the 1950s*." The subject site contains a pedestrian and highly modified example of an interwar former motor garage. It is not considered to be a fine nor intact example of the typology. The building is therefore limited in its contribution to the surrounding streetscape and indeed the identified character and statement of significance of the *Town Centre Heritage Conservation Area*.

The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering.

The remainder of the development provides contemporary sympathetic responses to the existing urban form and character of the area. The proposed scheme for the subject site responds appropriately to the scale and character of the Town Centre HCA. The scheme is notably contemporary and is sympathetic to the scale and form of surrounding development. The proposed development remains at one storey and features a series of gable roof forms along those frontages which present to, and interact with the public domain (Miles Street and Rouse Street). The design employs traditional materiality in the form of face brick which is considered appropriate in a predominantly masonry context.

The scheme is of a scale consistent with surrounding development and is not at risk of overwhelming or detracting from traditional features and elements of the *Town Centre Heritage Conservation Area* . The scheme employs a pedestrianised plaza and awning open to the public domain, cultivating appropriate activation at street level which remains consistent with the character of Rouse Street. The proposed development employs appropriate verticality across prominent street frontages sympathetic to existing proportions along Rouse Street and throughout the broader HCA.

The works facilitate the next phase of use and improved amenity of the site with no adverse impact on the immediate streetscape character and setting. The proposed scheme responds appropriately to the heritage context of the area such that it does not alter, obscure, or detract from dominant typologies, scale, form and character of the *Town Centre Heritage Conservation Area*. The development is assessed to have no adverse heritage impact on the significance of the *Town Centre Heritage Conservation Area*.

5.2. TENTERFIELD LOCAL ENVIRONMENTAL PLAN 2013

The table below provides and assessment of the proposal against the relevant provision for heritage conservation as found in the *Tenterfield LEP 2013*.

Table 3 Assessment against the Tenterfield Local Environmental Plan 2013

Clause	Response
(2) Requirement for consent *Development consent is required for any of the following:* *(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):* *(i) a heritage item,* *(ii) an Aboriginal object,* *(iii) a building, work, relic or tree within a heritage conservation area,* *(e) erecting a building on land:* *(i) on which a heritage item is located or that is within a heritage conservation area, or* *(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance…*	The subject site is located within a conservation area under Schedule 5 of the Tenterfield LEP 2013. Accordingly, consent is required for the works under this clause.
(4) Effect of proposed development on heritage significance *The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).*	This heritage impact statement includes a detailed assessment of potential heritage impacts.
(5) Heritage assessment *The consent authority may, before granting consent to any development:* *(a) on land on which a heritage item is located, or* *(b) on land that is within a heritage conservation area, or*	The heritage impact statement has been prepared to assist the Council in their determination and assess the heritage impacts of the proposal.

Clause	Response
(c) on land that is within the vicinity of land referred to in paragraph (a) or (b), *require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.*	

5.3. TENTERFIELD DEVELOPMENT CONTROL PLAN 2014

The table below assesses the proposal against the relevant objective and provisions for heritage conservation as found in the Tenterfield DCP 2014.

Table 4 Tenterfield Development Control Plan 2014

Clause	Discussion
Streetscape	
Colour Schemes Only buildings with high heritage significance should be painted in their original colour schemes. Otherwise a traditional colour scheme which fits in with the street as a whole should be considered, especially for that part of the building from the awning soffit upwards. For different styles and periods of building there are alternative colour schemes available. Refer to two books by Evans, Lucas and Stapleton on Colour Schemes for Old Australian Houses (see reference list at end of this chapter). Council's Heritage Advisor can also assist in the selection of appropriate colours in accordance with the buildings age and history. Parapets, awning soffits and fascias that are continuous across more than one occupancy should be painted with the same colour(s) irrespective of the different signage.	The subject site is not a listed heritage item under the *Tenterfield LEP 2013*. This heritage impact statement confirms the subject site to be highly altered and stripped of any significant period detail. The subject site does not require painting in original or traditional colour schemes. It may be appropriate to consider restoration of previous historic painted signage as part of a future heritage interpretation plan for the site.
Infill Development Infill buildings should not pretend to be heritage buildings but must be sympathetic to the period of the buildings surrounding it and fit into the streetscape. Materials for major building elements should relate to the common materials existing in the area. For development within a row of buildings, the new work should try to adopt the existing horizontal lines which run along buildings, such	The proposed development remains appropriately sympathetic to the character of the surrounding streetscape. Principal street frontages employ traditional gabled roof forms, face-brick facades and vertical proportions. The development is modestly scaled such that it does not overwhelm or detract from the character of the Town Centre HCA. The proposed scheme includes a pedestrianised plaza, open to Rouse Street and an extended awning, encouraging appropriate street activation consistent with that along Rouse Street.

Clause	Discussion
as roof ridges, parapets, gutters, windowsills and awnings. Window and door openings are a major part of a building's design. For infill development the proportions of the openings should be similar to those of adjoining buildings, Long facades should be broken up by windows or recesses, combined with verandahs, awnings or window hoods.	Dominant forms of surrounding development include single storey gable roof profiles and strong horizontal forms, often as continuous street level awnings. The principal frontages reflect existing fine grain detail seen along Rouse Street, ensuring the new design is well-integrated into the character of the Town Centre. The proposed scheme responds appropriately to the existing character of the Town Centre HCA whilst remaining suitably contemporary.
Significant Features Features of significance should be conserved or reinstated. Any inappropriate alteration should be removed, and the original feature re-constructed as well as possible. Council has information available on the heritage inventory form for the building which will assist in identifying any significant features.	The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering. The low height projecting masonry element to the principal façade of the former motor garage is being retained. It is not clear what purpose this element previously served however it is evident in photographs from the mid twentieth century. The proposal includes construction of a new awning to the principal façade of the former motor garage. While this element is not original nor evident in any earlier photographs, it will provide a higher level of amenity for the future use of the place, is in a sympathetic style and is completely reversible.

5.4. HERITAGE NSW GUIDELINES

The proposed works are addressed in relation to relevant questions posed in Heritage NSW's (former Heritage Office/Heritage Division) 'Statement of Heritage Impact' guidelines.

Table 5 Heritage NSW Guidelines

Clause	Discussion
The following aspects of the proposal respect or enhance the heritage significance of the item or conservation area for the following reasons:	The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering. The low height projecting masonry element to the principal façade of the former motor garage is being retained. It is not clear what purpose this element previously served however it is evident in photographs from the mid twentieth century. The proposal includes construction of a new awning to the principal façade of the former motor garage. While this element is not original nor evident in any earlier photographs, it will provide a higher level of amenity for the future use of the place, is in a sympathetic style and is completely reversible. The proposed development remains appropriately sympathetic to the character of the surrounding streetscape. Principal street frontages employ traditional gabled roof forms, face-brick facades and vertical proportions. The development is modestly scaled such that it does not overwhelm or detract from the character of the Town Centre HCA. The proposed scheme includes a pedestrianised plaza, open to Rouse Street and an extended awning, encouraging appropriate street activation consistent with that along Rouse Street. Dominant forms of surrounding development include single storey gable roof profiles and strong horizontal forms, often as continuous street level awnings.

Clause	Discussion
	The principal frontages reflect existing fine grain detail seen along Rouse Street, ensuring the new design is well-integrated into the character of the Town Centre. The proposed scheme responds appropriately to the existing character of the Town Centre HCA whilst remaining suitably contemporary. The subject proposal will have no adverse visual or physical impacts on any listed heritage items located in the vicinity of the site. While it is beyond the scope of this report to assess the archaeological potential of the site or the potential archaeological impacts of the proposal, we note that the existing concrete slab in the former motor garage is being retained, and therefore the sub surface area for this building is not being disturbed. Overall the proposal is considered to be a highly sensitive and responsive development to both the character of the local area and to the former motor garage building.
The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures to be taken to minimise impacts:	No aspects of the proposal are considered to have the potential for detrimental heritage impacts.
The following sympathetic solutions have been considered and discounted for the following reasons:	None identified.
Partial Demolition Is the demolition essential for the heritage item to function? Are important features of the item affected by the demolition (e.g. fireplaces in buildings)? Is the resolution to partially demolish sympathetic to the heritage significance of the item? If the partial demolition is a result of the condition of the fabric, is it certain that the fabric cannot be repaired?	The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering.
Major additions How is the impact of the addition on the heritage significance of the item to be minimised?	Internally within the former motor garage, limited original fabric or spatial configurations remain intact due to many alterations over time. The interior of the building will be modified to remove the existing later wall partitions of no

Clause	Discussion
Can the additional area be located within an existing structure? If not, why not? Will the additions tend to visually dominate the heritage item? Are the additions sited on any known or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered? Are the additions sympathetic to the heritage item? In what way (e.g. form, proportions, design)?	heritage value, and converted into a new cinema complex. There are no adverse heritage impacts as a result of this internal reconfiguration. The remainder of the proposal, and in particular the stage 2 buildings, have been appropriately setback from the former motor garage building and are sympathetic to the character of the area in terms of scale and built form.
Change of use Has the advice of a heritage consultant or structural engineer been sought? Has the consultant's advice been implemented? If not, why not? Does the existing use contribute to the significance of the heritage item? Why does the use need to be changed? What changes to the fabric are required as a result of the change of use? What changes to the site are required as a result of the change of use?	The proposed change of use of the site from motor garage to community facilities is considered acceptable as it provides a new functional purpose for a redundant asset. There are opportunities for heritage interpretation for the former motor garage use through fabric conservation, signage and general informative interpretation devices. There is also an opportunity to interpret Sexton & Green's other early 20th Century enterprise, the Tenterfield Pictures/Lyceum Theatre, considering that the subject proposal includes provision of a new cinema complex.

7. CONCLUSION AND RECOMMENDATIONS

The subject site has been assessed against the relevant criteria for assessing heritage significance as outline by Heritage NSW and the Heritage Council of New South Wales. It is concluded that the subject site does not meet the requisite threshold for individual heritage listing under any of the criteria.

The subject site contains a pedestrian and highly modified example of an interwar former motor garage. It is not considered to be a fine nor intact example of the typology. It is considered to be generally representative of simple interwar motor garages more broadly and of the evolution of motoring in New South Wales. The subject site is associated with Messrs. Sexton and Green who established the motor garage business on the site in c.1919-20. Sexton and Green were both noted proprietors in the town having also owned the original Tenterfield Pictures / Lyceum Theatre site. The subject site has a degree of historical significance associated with its long running (c.100 years) operation as a motor garage and dealership.

A detailed impact assessment of the proposed works has been undertaken in Section 5 of this report. The proposed development has been assessed to have an acceptable impact on the significance of the Tenterfield Town Centre Heritage Conservation Area. Key aspects of the proposal assessment are listed below:

- The subject property has limited original fabric and a very low level of aesthetic integrity. However the proposal has been revised in consultation with Council to include the retention and integration of the existing external walls and principal parapeted façade into the new development for heritage interpretation purposes. While this is considered to be an unnecessary retention given that the site has not been assessed as meeting the threshold for heritage listing, it does provide an interpretation of the historical use of the site and a historical layering of fabric. This report recommends implementation of a heritage interpretation plan to assist the future users of the site to understand this layering.
- The low height projecting masonry element to the principal façade of the former motor garage is being retained. It is not clear what purpose this element previously served however it is evident in photographs from the mid twentieth century and is being retained at Council's request. No further historical information is available on this element.
- The proposal includes construction of a new awning to the principal façade of the former motor garage. While this element is not original nor evident in any earlier photographs, it will provide a higher level of amenity for the future use of the place, is in a sympathetic style and is completely reversible.
- The proposed development remains appropriately sympathetic to the character of the surrounding streetscape. Principal street frontages employ traditional gabled roof forms, face-brick facades and vertical proportions.
- The development is modestly scaled such that it does not overwhelm or detract from the character of the Town Centre HCA.
- The proposed scheme includes a pedestrianised plaza, open to Rouse Street and an extended awning, encouraging appropriate street activation consistent with that along Rouse Street. Dominant forms of surrounding development include single storey gable roof profiles and strong horizontal forms, often as continuous street level awnings.
- The principal frontages reflect existing fine grain detail seen along Rouse Street, ensuring the new design is well-integrated into the character of the Town Centre. The proposed scheme responds appropriately to the existing character of the Town Centre HCA whilst remaining suitably contemporary.
- The subject proposal will have no adverse visual or physical impacts on any listed heritage items located in the vicinity of the site.

While it is beyond the scope of this report to assess the archaeological potential of the site or the potential archaeological impacts of the proposal, we note that the existing concrete slab in the former motor garage is being retained, and therefore the sub surface area for this building is not being disturbed. Overall the proposal is considered to be a highly sensitive and responsive development to both the character of the local area and to the former motor garage building. For the reasons stated above, the proposed works are recommended for approval from a heritage perspective having regard to the proposed recommendations below.

RECOMMENDATIONS

- Prior to the issue of a Construction Certificate, a Photographic Archival Recording should be undertaken of the former motor garage building and should be prepared in accordance with the Heritage NSW's Guidelines for 'Photographic Recording of Heritage Items Using Film or Digital Capture'.
- A Heritage Interpretation Strategy should be prepared for the site by a suitably qualified heritage consultant as a condition of the DA consent. The Heritage Interpretation Strategy should identify significant themes and narratives for interpretation, as well as identifying locations, media, and indicative content for interpretation. Interpretation should be developed throughout detailed design and construction phases in conjunction with the project architect and other specialists as required.

  There are opportunities for heritage interpretation for the former motor garage use through fabric conservation, signage and general informative interpretation devices. It is noted that a lot of fixtures and historical elements were auctioned off when the dealership closed in 2020, which is disappointing as these would have contributed meaningfully to the comprehensive interpretation of the former motor garage use. There is also an opportunity to interpret Sexton & Green's other early 20th Century enterprise, the Tenterfield Pictures/Lyceum Theatre, considering that the subject proposal includes provision of a new cinema complex.
- The works should include conservation works for the principal parapeted façade to ensure retention of the rendered ashlar lines existing here. A heritage consultant should be consulted with regards to final detailing of the design to ensure that any impacts are appropriately managed.

8. BIBLIOGRAPHY AND REFERENCES

8.1. BIBLIOGRAPHY

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8.2. REFERENCES

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[Note: Some government departments have changed their names over time and the above publications state the name at the time of publication.]

DISCLAIMER

This report is dated 1 February 2022 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of SHUN HUNG PTY LTD **(Instructing Party)** for the purpose of a Development Application **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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URBIS

Heritage Referral (2) DA 2021-132
Former Sexton and Green site, 148 Rouse Street.

Figure 1 Extract of proposed plans – proposed render

Source: MGA 2021

February 2022

Prepared by
Clarence Heritage
For Tenterfield Shire Council.

1. Background

Clarence Heritage provided a Heritage Referral on 3 November 2021 in response to the original submitted Development Application 2021/0132 and accompanying Statement of Heritage Impact (SOHI) by Urbis Pty Ltd. This referral advice raised several issues and provided extensive historical information relating to the significance of the site with acknowledgment to contribution by local community members.

The following recommendations were made.

- **A detailed assessment of the significance and fabric of the building, the potential impact of the proposed development on the significance of the HCA and heritage items in the vicinity of the site, and an assessment of the archaeological potential of the site should be provided in an updated SOHI.**

- **The historic building façade should be retained and restored and integrated with the new development to maintain a linkage to the historical significance of the site and conserve early fabric of the town centre.**

- **A heritage interpretation plan should be provided with the application to convey the significance of the site in the proposed development.**

- **A detailed schedule and samples of all external finishes and colours, sympathetic to the Tenterfield Heritage Conservation Area are to be provided for prior approval.**

Follow up discussions were held with Council and the applicant on 14 December 2021. With regard to the archaeological potential the applicant confirmed that no excavation or removal of the existing concrete slab is proposed. The requirement for an archaeological potential report was removed on this basis. The issue can be appropriately managed by a condition for to address any unexpected finds during works covered by statutory provisions of the *Heritage Act 1977.*

2. Updated Statement of Heritage Impact Urbis Pty Ltd

An updated SOHI dated 02.02.2022 was submitted which has provided a more detailed review of the significance of the site and assessment of the potential impacts to the Tenterfield Town Centre statutory Heritage Conservation Area. I have reviewed this report and generally concur with its findings with comments below.

Section 4.2 of the SOHI acknowledges the heritage significance of the site which demonstrates that that the site has historical, historical associative, aesthetic (limited) , and social significance.

The historical and associative significance of the site with Messrs Sexton and Green, and its continuous use for over 100 years, and relationship to the local community attached to this site are considered to hold strong local heritage significance. Whilst the use has now ceased these historic evidence will be conserved by retention of the principal parapeted façade. The associative and social significance will be retained through a proposed heritage interpretation strategy which will tell the story of the place and increase the understanding of the place for future generations.

It is agreed that with the exception of the extant main principal façade, the site has a fairly low level of aesthetic significance or integrity and it is unlikely to meet this criteria. The careful conservation of the principal façade requirement has been accepted by the proponent and is incorporated into the development with a sympathetic awning. This is strongly supported and will provide an ongoing historic link to the former use of the site.

The proposed new building form and detailing is considered complementary and harmonious in the context of its setting and will enhance the main street precinct, enclosing a currently open void in the streetscape, and framing this entry to the commercial precinct. It is considered that the proposed development will not have any adverse impacts on the fabric, setting or views of the Tenterfield Heritage Conservation Area and Heritage Items in the vicinity of the site.

It is noted that Section 4.3 (page 21) concludes that the subject site does not meet the threshold for individual listing under any of the criteria. Whilst a proposed for individual listing of this site has not actively been sought, it is noted that an item will be considered to be of State or local heritage significance if it meets one or more of the assessment criteria (Ref Assessing Heritage Significance Heritage Office 2001.page 9.)

It is considered that the subject site does meet one or more criteria, particularly for its historical and associative significance at a local level, and also is an example of a place which demonstrates the assessed significance of the Town Centre Heritage Conservation Area

It retains a core of buildings with fine examples of commercial, governance, education, ecclesiastical, domestic and social development dating from the 1850s to the 1950s which demonstrate confidence in the development of a township in the northern tablelands during this period (SHI 2490394)

NSW heritage assessment criteria

An item will be considered to be of State (or local) heritage significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the following criteria:

Criterion (a)

An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);

Criterion (d)

An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;

Criterion (e)

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (f)

An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (g)

An item is important in demonstrating the principal characteristics of a class of NSW's
- **cultural or natural places; or**
- **cultural or natural environments.**

(or a class of the local area's
- **cultural or natural places; or**
- **cultural or natural environments.)**

An item is not to be excluded from the Register on the ground that items with similar characteristics have already been listed on the Register.

While all criteria should be referred to during the assessment, only particularly complex items or places will be significant under all criteria. In many cases, items of environmental heritage will be significant under only one or two criteria.

In using these criteria it is important to assess the values first, then the context in which they are significant. Decide the appropriate context by considering similar items of local and State significance in each of these contexts.

These criteria were gazetted following amendments to the Heritage Act which came into force in April 1999. The Heritage Council determines the criteria for State significance and issues guidelines to assist in their application.

Extract Assessing Heritage Significance 2001 NSW Heritage Office

3. RECOMMENDATIONS

The SOHI proposes 3 detailed recommendations which address making an archival report of the existing building, the development of a Heritage Interpretation Strategy and the careful conservation of the principal parapeted façade. These recommendations are fully supported and should be made conditions of consent with the following additional requirements;

1. Archival Report

Prior to the issue of a Construction Certificate, a Photographic Archival Recording should be undertaken of the former motor garage building and should be prepared in accordance with the Heritage NSW's Guidelines for 'Photographic Recording of Heritage Items Using Film or Digital Capture'.

2. Heritage Interpretation Strategy and installation

A Heritage Interpretation Strategy should be prepared for the site by a suitably qualified heritage consultant as a condition of the DA consent. The Heritage Interpretation Strategy should identify significant themes and narratives for interpretation, as well as identifying locations, media, and indicative content for interpretation. Interpretation should be developed throughout detailed design and construction phases in conjunction with the project architect and other specialists as required.

There are opportunities for heritage interpretation for the former motor garage use through fabric conservation, signage and general informative interpretation devices. It is noted that a lot of fixtures and historical elements were auctioned off when the dealership closed in 2020, which is disappointing as these would have contributed meaningfully to the comprehensive interpretation of the former motor garage use. There is also an opportunity to interpret Sexton & Green's other early 20th Century enterprise, the Tenterfield Pictures/Lyceum Theatre, considering that the subject proposal includes provision of a new cinema complex.

Approved detailed drawings of interpretation devices and their content for the subject site, including external and internal locations, with any signage being consistent with the format of Tenterfield Town Centre interpretation signs, are to be submitted to, and approved by Tenterfield Shire Council prior to the issue of a Construction Certificate by the Principal Certifying Authority. Approved Devices/signs and installations are to be installed prior to the issue of an Occupation Certificate for the building.

3. Principal Façade Conservation

The works should include conservation works for the principal parapeted façade to ensure retention of the rendered ashlar lines existing here. A heritage consultant should be consulted with regards to final detailing of the design to ensure that any impacts are appropriately managed.

4. External Finishes and Materials

A schedule of all external finishes and colours, sympathetic to the Tenterfield Town Centre Heritage Conservation Area and heritage items in the vicinity of the site is to submitted to, and approved by Council, prior to prior to the issue of a Construction Certificate by the Principal Certifying Authority.

5. Signage

Details of all signage which are to be sympathetic to the significance and setting of the building in the Tenterfield Town Centre Heritage Conservation Area are to be submitted to, and approved by Council, prior to prior to the issue of a Construction Certificate by the Principal Certifying Authority.

6. Advice -Alterations

Owners are advised of the requirements of Clause 5.10 of Tenterfield LEP 2013 in relation to the need to obtain prior consent for works including 'any alterations to the fabric, finish and appearance' of a heritage item or a building in a Heritage Conservation Area. Many works can be approved through a 'no fee', minor works and maintenance application under Clause 5.10 (3).

7. Advice -Relics Provisions-

(a) Attention is directed to the *NSW Heritage Act 1977* and the provisions of the Act in relation to the exposure of relics. The Act requires that if:

i) a relic is suspected, or there are reasonable grounds to suspect a relic in ground, that is likely to be disturbed damaged or destroyed by excavation; and/or

ii) any relic is discovered in the course of excavation that will be disturbed, damaged or destroyed by further excavation;

those responsible for the discovery must notify nominated management personnel who will in turn notify the Heritage Council of New South Wales or its delegate, Heritage NSW and suspend work that might have the effect of disturbing, damaging or destroying such relic until the requirements of the NSW Heritage Council have been satisfied (ss139, 146).

CLARENCE HERITAGE

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