# FINAL REPORT

# Aquatic Animal Health Subprogram: Validation of DNA-based (PCR) diagnostic tests suitable for use in surveillance programs for QX disease of Sydney rock oysters (*Saccostrea glomerata*) in Australia

**Dr R.D. Adlard & Dr J. Worthington Wilmer**

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**OBJECTIVES:**

1. Production of a fully-validated, standard PCR diagnostic test for the presence of *Marteilia sydneyi* in oyster tissue capable of identifying *Marteilia sydneyi* to species level and with a high level of sensitivity.
2. Assessment of comparative cost/benefit of histological, cytological and PCR diagnostic methods for identification of *Marteilia sydneyi*.
3. Production of an Australian and New Zealand Standard Diagnostic Procedure (ANZSDP) for QX disease.

**NON TECHNICAL SUMMARY:**

**OUTCOMES ACHIEVED**

The validation of DNA-based diagnostic tests for QX disease has had an unexpected outcome. Using these sensitive diagnostic methods during the validation process, the disease agent (*Marteilia sydneyi*) has been identified in 9 estuaries from which it has never previously been reported. As a consequence, our understanding of the dynamics of QX disease has changed dramatically. QX disease management has largely been predicated on the basis that the distribution of the disease agent is limited, and where it does occur it causes significant mortalities of oysters. Hence, restriction on translocation of potentially infected stock from QX disease endemic areas was thought to be the most effective management tool. It now appears that the distribution of the disease agent is much more widespread than previously thought and that it can exist without causing epizootic disease.

*Summary*: The most significant disease of commercial rock oysters in Australia is QX disease (caused by infection with the protozoan parasite *Marteilia sydneyi*) which has led to recurrent seasonal mortalities of cultured rock oysters. Research has determined that oysters become infected over a relatively short period of time in mid to late summer, then the disease agent proliferates within the oyster and oysters die within about 6-12 weeks of infection. Outbreaks of QX disease have been recorded routinely in estuaries on the NSW central and northern coast and in SE Queensland. Management practices to limit the impact of the disease are currently predicated on restricting the translocation of potentially infected oyster stock from disease endemic areas to areas free of the disease. However, this in turn is based on our ability to detect the disease in any area through diagnostic examination of samples collected

during surveillance programs. Until now, diagnosis of the presence of the QX disease agent has been undertaken through microscopic examination of either tissue imprints of oyster digestive glands (i.e. tissue is blotted against a glass microscope slide, stained and examined) or tissue sections (i.e. routine embedding, staining and examination of thin tissue sections). These are standard pathology techniques which require training in the identification of developmental stages of the parasite.

The aim of this project (FRDC2001/630) was to enhance our capacity to diagnose QX disease by the development of a standard diagnostic protocol based on detecting the presence of the disease agent's DNA. We built on research undertaken by Kleeman & Adlard (2000) to refine the polymerase chain reaction (PCR) amplification of a short section of the parasite's DNA, a specific indicator of its presence. The DNA test was optimised to reduce cost without compromising the sensitivity of the test and then validated against 1,839 individual oysters of known or presumed disease status.

Results of these tests indicated clearly that DNA-based diagnostics were able to detect the presence of *M. sydneyi* at a higher sensitivity than microscopic analysis. In estuaries in which the disease had been diagnosed through microscopy (Georges R, Clarence R., Richmond R., Southern Moreton Bay), a total of 199 oysters were determined to be infected out of 1,000 tested. However, diagnosis using DNA-based tests on a subset of 400 of the same oysters (including all positive oysters diagnosed by microscopy) revealed a total of 223 infected oysters (absolute identity was confirmed using other tests). The difference between these diagnostic results can be explained by the number of disease agents present (i.e. the intensity of infection) in the tissues tested. There is an inverse correlation between the intensity of infection and the required sensitivity of a diagnostic test to detect it.

Furthermore, in a total of 1,340 oysters from 9 estuaries in which QX disease had not been reported previously and which were presumed to be negative from microscopic examination, 116 were determined to be positive for the disease agent through DNA-based diagnosis. On re-examination, these specimens exhibited inflammation and tissue changes consistent with that expected in oysters with early QX disease, however, no disease agent was observed. A second molecular test (DNA probe in-situ hybridisation) confirmed the presence of the disease agent albeit at an atypical developmental stage, rather than at its normal proliferative stage.

In all cases the DNA-based diagnostic protocol identified the presence of *Marteilia sydneyi* at a higher sensitivity than that provided by previous diagnostic tests based on microscopic examination. This technique also obviates the requirement for expert recognition of individual pathogens, and as such, the protocol is easily transferable between laboratories equipped for PCR diagnosis.

The ability to run DNA-based diagnostic tests in batches also confers time and cost benefits with the average test being significantly less expensive in consumable reagents than the cost of diagnosis through examination of tissue sections.

The major aim of the project, to produce a validated Standard Diagnostic Procedure for *Marteilia sydneyi* based on DNA tests, has been achieved and its use is recommended for surveillance of QX disease in commercial rock oysters.

**KEYWORDS:** Sydney rock oyster, aquaculture, QX disease.

**ACKNOWLEDGMENTS:**
We acknowledge our major partner, NSW Fisheries, for the provision of field samples from NSW estuaries and their input into various aspects of the design of this project. Our thanks to oyster industry groups in New South Wales (NSW Oyster Farmer's Association, NSW Farmer's Federation – Oyster Section) and Queensland (Queensland Oyster Grower's Association) who provided access to their aquaculture areas and logistical support. We are grateful to the members of the NSW Oyster Research Advisory Committee for their support of this project and to the Queensland Department of Primary Industries for assisting with liaison to industry. Special thanks to Dr Stephen Wesche, Research Officer on project FRDC2001-214, for technical and operational support.

**BACKGROUND:**

DNA-based detection techniques have offered many applications for the study of aquatic diseases. Polymerase Chain Reaction (PCR) and *in situ* hybridisation (ISH), have been the subject of significant interest for use in scientific research as well as for disease management in aquaculture. Protocols have been developed and optimised for use in the detection of haplosporidians (Fong *et al*., 1993; Stokes & Burreson, 1995; Stokes *et al*., 1995), myxosporidians (Bartholomew *et al*., 1997; Antonio *et al*., 1998) and paramyxeans (Kleeman & Adlard, 2000; Le Roux *et al*., 1999). Such techniques are rapid, highly sensitive and reliable. Furthermore, these technologies enable the unambiguous detection of all life cycle stages of a pathogen that are otherwise unrecognisable using traditional detection methods. Nonetheless, such tests must be validated before they can be used with confidence (Hiney & Smith, 1998).

Assays developed for the diagnosis of cryptic parasite stages in host tissue that are based on nucleic acid sequences must prove: sensitive enough to detect low levels of infection and/or individual cells; unable to cross react with host tissue; able to be repeated with consistent results; and their levels of specificity among closely related species must be qualified.

This project relates directly to the FRDC project 2001/214 '*Development of a disease zoning policy for marteiliosis to support sustainable production, health certification and trade in the Sydney rock oyster*', in which the zoning policy framework developed under the Federal Government's *Aquaplan* is implemented in a practical framework. FRDC2001/214 is aimed at identifying estuaries of marteiliosis endemicity and will help develop an effective program of surveillance for the disease in oyster culture areas on the east coast of Australia.

The value of surveillance programs to identify the presence of pathogens depends on both a statistically robust sampling regime and a high confidence in diagnosis of the aetiological agent. The results of this project demonstrate unequivocally that sensitive diagnostic methods employing DNA-based presumptive diagnosis, followed by confirmatory molecular diagnosis, not only fulfil their expectations but also provide a wealth of information on the biology of the disease agent.

In the current project, samples collected under FRDC2001/214 were used to validate DNA-based (PCR) diagnostic methods for marteiliosis.

**NEED:**

Marteiliosis (QX disease, aetiological agent the protistan parasite *Marteilia sydneyi*), typically causes serious, seasonally recurrent mortalities in farmed and wild rock oysters (*Saccostrea glomerata*) in eastern Australia. The disease is listed as notifiable by the OIE and is included on the Australian National List of Reportable Disease of Aquatic Animals.

The global animal health body (Office Internationale des Epizooties, OIE) has recently adopted the concept of zoning to facilitate trade and to prevent spread of disease within a country. In turn, Australia has recognised the value of zoning in its aquaculture industries with the adoption and endorsement of *Zoning Policy Guidelines* by the Standing Committee on Fisheries and Aquaculture.

The establishment of scientifically defensible zoning and translocation policies, particularly in relation to QX disease control, is critical to the long-term development of the rock oyster aquaculture industry. State authorities in New South Wales and Queensland currently prohibit movement of oysters from known QX-infected estuaries to those thought to be free of infection. However, given the many millions of rock oysters translocated annually between NSW estuaries of undetermined disease status, there is an urgent need to accurately identify free and infected zones. This, in turn, depends upon the availability of standardised, validated diagnostic tests.

Diagnostic techniques for molluscan pathogens are relatively limited, with most based on histological and ultrastructural examination (OIE Manual, 2002). The OIE manual (2002) recommends that surveillance is routinely performed by histology, but that various presumptive diagnostic methods e.g. cytology (tissue imprints), can be used in addition. Furthermore, when a pathogen is encountered during screening or mortality outbreaks, electron microscopy and/or molecular probes should be used for specific identification, if available (OIE Manual, 2002).

Recently, there have been major advances in development of PCR tests for marteiliosis (Berthe *et al.,* 2000; Kleeman and Adlard 2000). The validation of PCR-based tests for marteiliosis through this project will assess whether PCR may provide: a more sensitive alternative for presumptive diagnosis obtained by either histopathology or cytology; a relatively inexpensive method for mass screening of oysters for the presence of *Marteilia sydneyi*.

**OBJECTIVES:**

1. Production of a fully-validated, standard PCR diagnostic test for the presence of *Marteilia sydneyi* in oyster tissue capable of identifying *Marteilia sydneyi* to species level and with a high level of sensitivity.
2. Assessment of comparative cost/benefit of histological, cytological and PCR diagnostic methods for identification of *Marteilia sydneyi*.
3. Production of an Australian and New Zealand Standard Diagnostic Procedure (ANZSDP) for *Marteilia sydneyi*.

**METHODS:**

*Sampling and specimen selection*:

Oysters collected under project FRDC2001/214 from 18 estuaries in NSW and 3 areas in SE Queensland were screened by microscopic examination of tissue imprints and the disease status recorded under that project. All specimens were given a unique identifier against which collection data were recorded. Tissue samples from each oyster were preserved in 100% ethanol for DNA extraction and 10% buffered formalin for histological examination if required. These specimens then became the basis for validating the PCR diagnostic test for *Marteilia sydneyi*.

Figure 1 shows collection areas from which 4 groups of specimens were selected on disease status. Group 1: Known QX disease-positive oysters from Southern Moreton Bay (N=2), Clarence River (N=55), Richmond River (N=102) and Georges River (N=40) (i.e. positive oysters, total N=199); Group 2: presumed negative oysters from estuaries known to be positive for QX disease - Southern Moreton Bay, Clarence River, Georges River (N=100 from each estuary), (i.e. negatives from positive

estuaries, total N=300); Group 3: presumed negative oysters from estuaries with no record of QX disease – Merimbula (N=140), Narooma (N=100), Tuross (N=100), Bateman's Bay (N=100), Crookhaven/Shoalhaven (N=100), Hawkesbury River (N=100), Port Stephens (N=100), Wallis Lake (N=100), (i.e. negatives from negative estuaries, total N=840); Group 4: strategic estuaries sampled in response to results from Group 3 above – Hastings River (N=100), Brunswick River (N=100), Macleay River (N=100), Northern Moreton Bay (N=100), Central Moreton Bay (N=100), i.e. presumed negative oysters from strategic estuaries, N=500).

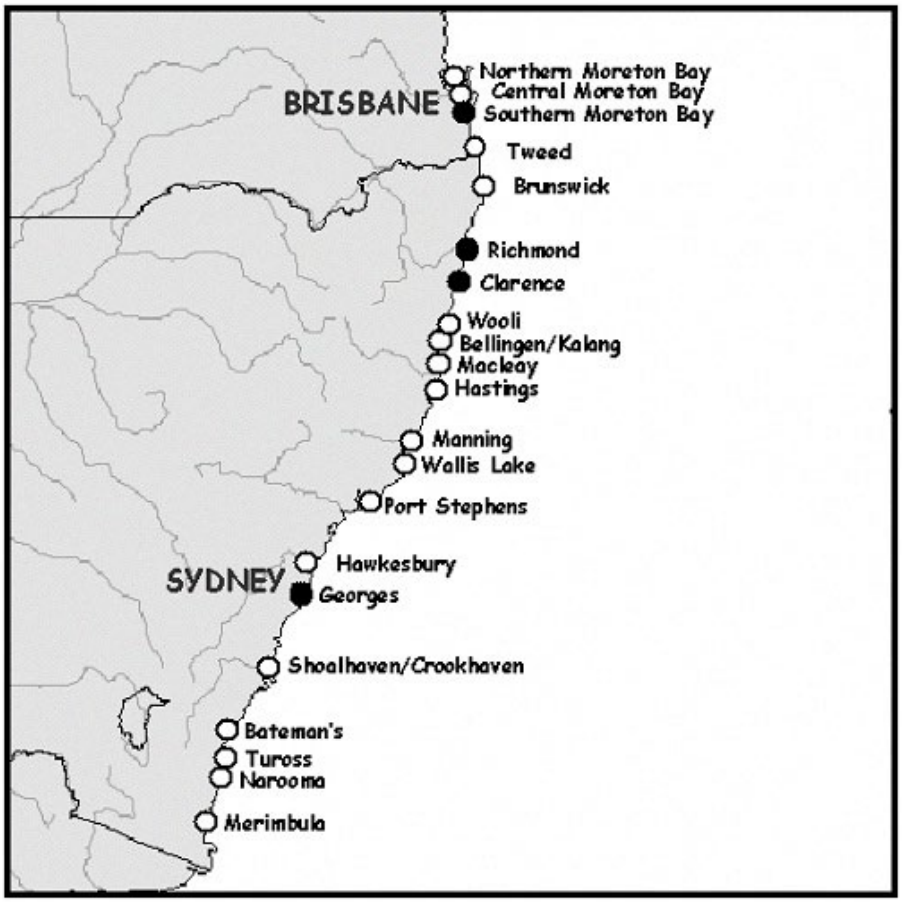


***Figure 1: Estuaries in which oyster collection was undertaken, filled circles indicate estuaries in which recurrent epizootics of QX disease occur and in which microscopic examination of imprints in 2002 samples identified the presence of* Marteilia sydneyi.**

*Presumptive Diagnosis – PCR screening:*

*1) DNA Extraction:*

Total genomic DNA was extracted from a small subsample of tissue excised from the digestive gland of each oyster. Extractions were performed using commercially available standard DNA tissue extraction kits (DNeasy Tissue Kit, Qiagen) but standard Proteinase-K digestion, phenol/chloroform extraction and ethanol precipitation as described in Kleeman and Adlard (2000) and Kleeman *et al*. (2002) may be substituted.

*2) Polymerase Chain Reaction.(PCR)*

a) Double stranded PCR reactions were performed on all DNA extracts using *Marteilia sydneyi* specific primers which target an ~200 base pair (bp) section of ITS1 (internal transcribed spacer) (see Table 1). For each batch of PCR reactions performed, a negative control i.e. a PCR reaction containing no DNA template, and a positive control i.e. a PCR reaction containing DNA from a known *Marteilia sydneyi* infected sample, were included. The former is run to ensure that the presence of a amplified product was not due to contamination of the PCR reagents, and the latter to ensure that the absence of any amplified product was not a result of a failed reaction.

***Table 1*** *– Marteilia sydneyi ITS1 PCR Primers*

| ***Primer Name*** | **Sequence 5'-3'** | **Source/Ref** |
|---|---|---|
| LEG1 (forward) | CGA TCT GTG TAG TCG GAT TCC GA | Kleeman and Adlard, 2000 |
| PRO2 (reverse) | TCA AGG GAC ATC CAA CGG TC | Kleeman and Adlard, 2000 |

b) Reaction parameters were initially taken from Kleeman & Adlard (2000) where the environment was based on research outcomes. In this project we extended that research and aimed to maximise the cost/benefit of PCR tests for the presence of *M. sydneyi* under a standard diagnostic regime, where PCR tests could be applied potentially to routine surveillance for QX disease. As such, reaction parameters were optimised to minimise cost without compromising the efficacy of the test.

Using a subset (n=7) of marteiliosis positive DNA samples, threshold detection and optimisation of the original PCR protocol developed by Kleeman and Adlard (2000) was investigated. According to this protocol PCR amplifications were originally performed in a 50µl reaction volume under the following conditions, expressed as final concentrations:

1x *Taq* polymerase buffer;
2mM dNTPs;
2mM $MgCl_2$;
1µM each primer;
3 units *Taq* polymerase

The thermal cycling parameters were as follows: denature at 95$^{o}$C for 1 minute; anneal at 55$^{o}$C for 1 minute; extend at 72$^{o}$C for 1 minute, repeated for 30 cycles with a final extension at 72$^{o}$C for 7 minutes (Kleeman and Adlard, 2000).

The lower threshold limits of each of the key reagents and reaction parameters of the protocol was realised by altering each component individually while holding all other parameters constant. These lower threshold limits were defined as the concentration of reagent at which a PCR product was no longer successfully amplified or whereby the yield was such that the results could be considered unreliable (see results).

*3) Gel Electrophoresis*

The examination for the presence or absence of an amplified product (presumptive diagnosis of *Marteilia sydneyi*) was conducted by electrophoresis of 10µl of PCR product through submarine 1.4% (w/v) agarose gels and examined and

photographed under ultra-violet light. A molecular weight standard (100bp DNA ladder, MBI Fermentas) was used to estimate the size of the products.

**RESULTS:**

*Optimisation and Threshold Detection Experiments.*

The original protocol (Kleeman & Adlard, 2000) was run in a reduced total reaction volume of 25µl, currently a more widely accepted reaction volume for PCR. Following successful amplification under these conditions, the duration of each cycle parameter was reduced from 1 minute to 30 seconds and a further 5 cycles added according to standard PCR protocols. The use of a hot start Taq polymerase dictated an initial denaturation cycle of 95$^{o}$C for 10 minutes which was included into the cycling parameters. Again successful amplification was achieved in all samples. Subsequently, all reagent titration experiments were performed using the new final 25µl reaction volume and the new thermal cycling conditions. After experimental results were assessed from the titration of each reagent, the chosen optimised value of that reagent was used in the subsequent threshold experiments (see Tables 2-5).

*Table 2: Results of titration experiments of Taq polymerase (* indicates the concentration of reagent selected for use in the optimised protocol).*

| Reagent | Final concentration per 25µl reaction | Results (n=7 samples) |
|---|---|---|
| Taq polymerase<br><br>Applied Biosystems Hot Start AmpliTaq Gold | 3U (original protocol) | 7/7 |
| | 1U | 7/7 |
| | 0.75U* | 7/7 |
| | 0.5U | 7/7 decrease in yield |
| | 0.25U | 5/7 |
| | 0.1U | 1/7 |

*Table 3: Results of titration experiments of oligonucleotide primers (* indicates the concentration of reagent selected for use in the optimised protocol).*

| Reagent | Final concentration per 25µl reaction | Results (n=7 samples) |
|---|---|---|
| Primers (each) | 1 µM (original protocol) | 7/7 |
| | 0.5□µM | 7/7 |
| | 0.4□µM* | 7/7 |
| | 0.3□µM | 7/7 decrease in yield |
| | 0.2□µM | 7/7 decrease in yield |
| | 0.1□µM | 5/7 |
| | 0.05□µM | 2/7 |

*Table 4: Results of titration experiments of di-nucleotide tri-phosphates (A,C,G,T) (* indicates the concentration of reagent selected for use in the optimised protocol).*

| Reagent | Final concentration per 25µl reaction | Results (n=7 samples) |
|---|---|---|
| dNTPs | 2mM (original protocol) | 7/7 |
| | 1 mM | 7/7 |
| | 0.75 mM (0.8mM*) | 7/7 |
| | 0.5 mM | 7/7 slight decrease in yield |
| | 0.25 mM | 7/7 slight decrease in yield |
| | 0.1 mM | 7/7 slight decrease in yield |
| | 0.075 mM | 6/7 large decrease in yield |
| | 0.05 mM | 5/7 decrease in yield |
| | 0.025 mM | 0/7 |
| | 0.01 mM | 0/7 |

*Table 5: Results of titration experiments of $MgCl_2$ (* indicates the concentration of reagent selected for use in the optimised protocol).*

| Reagent | Final concentration per 25µl reaction | Results (n=7 samples) |
|---|---|---|
| $MgCl_2$ | 2.0 mM* (original protocol) | 7/7 |
| | 1.5 mM | 7/7 |
| | 1.0 mM | 5/7 |
| | 0.5 mM | 0/7 |
| | 0 mM | 0/7 |

In conjunction with the $MgCl_2$ titrations, PCR amplifications were run across a 20 degree temperature gradient (Gradient Thermal Cycler, Corbett Research) consisting of 12 different temperature points ranging from 45ºC to 65ºC (i.e. 45.0, 47.0, 48.8, 50.7, 52.5, 54.1, 55.8, 57.5, 59.2, 61.1, 63.0, 65.0ºC). Amplification in the annealing temperature range 45-48.8ºC was inconsistent, 50.7-59.2ºC was consistent for all samples and showed normal yields, 61.1-65.0ºC was consistent but yields were reduced (qualitative assessment from amplified product intensity on gels). These results indicated that no change in the 55ºC annealing temperature nor the magnesium chloride concentration described in the original protocol would be required.

The cost/benefit result of these optimisation experiments was a four-fold reduction in expense of individual PCR tests from approximately $2.80 to $0.70 per sample (based on current 2003 costs). Subsequent validation was undertaken on a total of 1,839 oysters representing 17 different locations in NSW and SE Queensland (see Fig 1, Appendix 2 for raw data) and was conducted under the newly developed, optimised protocol detailed below.

***Optimised PCR protocol:***
All PCR reactions, including the controls, are carried out in 25µl volume under the following reaction conditions:

*Reagents*

| **PCR reagents/sample** | **Volume** | **Final conc./sample** |
|---|---|---|
| Water (molecular biology grade) | 14.35µl | |
| 10x *Taq* polymerase buffer | 2.5µl | 1x |
| 10mM dNTPS | 2.0µl | 0.8mM |
| 10µM Primer LEG1 | 1.0µl | 0.4µM |
| 10µM Primer PRO2 | 1.0µl | 0.4µM |
| 25mM $MgCl_2$ | 2.0µl | 2.0mM |
| *Taq* polymerase | 0.15µl | 0.75 Units |
| Genomic DNA template | 2.0µl | 20-50ng |

*PCR Cycling Parameters*
The *Taq* polymerase used in the optimised reaction protocol is a hot-start polymerase (e.g. Applied Biosystems Ampli*Taq* Gold) that requires a 5-10 minute initial denaturation cycle prior to the commencement of the remaining cycle parameters.

a) Initial denaturation 95°C for 10 min.

b) Denaturation .....95°C for 30 sec
Annealing .....55°C for 30 sec } x 35 cycles
Extension .....72°C for 30 sec

c) Final Extension..... 72°C for 5 min
.....22°C for 30 sec

*Field validation of PCR protocol*

PCR was applied to all individual oysters representing the four experimental Groups (Table 6). Oysters which had been identified as positive through microscopic identification of *M. sydneyi* (Group 1), returned 2 false negative results in PCR of the total 199 known positive individuals tested. The inconsistency of this result may be explained either by degeneration of parasite DNA through autolytic processes (i.e. the tested oysters were in advanced stages of post-mortem degradation) and/or the tissue excised for DNA extraction did not contain oyster digestive gland or other infected tissues. The former hypothesis can be easily overcome by rejecting from testing oysters that are dead, while the latter can be avoided by sub-sampling of digestive gland tissue prior to preservation (and concomitant bleaching of the tissues) in ethanol.

A third potential hypothesis that '*the PCR test is not as sensitive as microscopic examination*' was discarded based on the overwhelming evidence provided by presumed negative (through microscopic examination, Groups 2, 3 and 4) oysters.

*Table 6: Summary results of PCR tests for 4 experimental groups of oyster samples.*

| Group | Designation | Total Oysters Screened | Positive PCR Results |
|---|---|---|---|
| 1 | Known QX positives | N = 199 | N = 197 |
| 2 | Negative oysters from QX positive estuaries | N = 300 | N = 25 |
| 3 | Negative oysters from QX negative estuaries | N = 840 | N = 58 |
| 4 | Strategic response estuaries | N = 500 | N = 59 |
| | | Total N=1,839 | Total N=339 |

A total of 300 oysters from Group 2 were tested by PCR to determine whether the detection limits of microscopic examination from estuaries in which the disease occurs were at a level which detected all infections. A further 25 oysters proved to be positive in PCR tests from this Group, suggesting that infection intensity in these individuals was too low to be identified through microscopic examination.

Finally, in presumed negative Groups 3 and 4, 117 oysters representing 13 different localities (see Table 7) proved to be positive for *M. sydneyi* in PCR of a total 1,340 oysters tested. To prevent diagnostic acceptance of false positives, a subset of these oysters were sectioned for histological examination. All showed varying degrees of inflammation throughout the connective tissue and associated with the digestive epithelia. Pathological abnormalities were consistent with, but not specifically indicative of, infection with *M. sydneyi*. DNA probe in-situ hybridisation (ISH) following the technique described in Kleeman, Adlard & Lester (2002) was applied to these samples and early stages of *M. sydneyi* were then observed in connective tissue surrounding the digestive tubules. Their identity was confirmed by Dr Sarah Kleeman (Biosecurity Australia).

*Table 7: Breakdown of oyster cultivation area against results of cytological and PCR diagnostic tests for* Marteilia sydneyi*.*

| Estuary | Group Assignment | Imprint Positives | PCR Positives |
|---|---|---|---|
| Southern Moreton Bay | 1 and 2 | 2 | 18 |
| Central Moreton Bay | 4 | 0 | 6 |
| Northern Moreton Bay | 4 | 0 | 7 |
| Clarence River | 1 and 2 | 55 | 62 |
| Georges River | 1 and 2 | 40 | 40 |
| Richmond River | 1 | 102 | 102 |
| Merimbula | 3 | 0 | 1 |
| Narooma | 3 | 0 | 25 |
| Tuross Lake | 3 | 0 | 19 |
| Bateman's Bay | 3 | 0 | 4 |
| Crookhaven/Shoalhaven | 3 | 0 | 0 |
| Hawkesbury River | 3 | 0 | 0 |
| Port Stephens | 3 | 0 | 2 |
| Wallis Lake | 3 | 0 | 7 |
| Hastings River | 4 | 0 | 3 |
| Brunswick River | 4 | 0 | 8 |
| Macleay River | 4 | 0 | 35 |

*Cost/Benefit Analysis*

The cost of consumables for an individual PCR test (from subsample of tissue, includes DNA extraction) is calculated at $5.75/oyster with this figure being exclusive of time or capital costs. A similar calculation for the cost of consumables for producing stained tissue imprints of oyster digestive gland is $0.36/oyster. To allow direct cost/benefit comparison of cytology, PCR and histology (which is out-sourced from the Queensland Museum to veterinary pathology at the University of Queensland) the calculations in Table 8 are based on batches of 150 oysters (sample size aligned to allow detection at 2% prevalence). Note that costs for time (Table 8) are based on actual hands-on processes (e.g. PCR machine run-time not included) and hourly rates are current Queensland Museum rates calculated on basic technical ability for preparation of imprints (casual rate $22.39/hr), higher technical ability for DNA extraction and PCR processes (casual rate $27.82/hr) and professional expertise in identifying disease agents through microscopy (casual rate $37.23/hr). These calculations assume that appropriately trained staff are available; they do not include infrastructure or administrative on-costs which vary between institutions and should be used for comparative purposes only.

*Table 8: Estimated comparison of costs for cytology (tissue imprints), histology and PCR based diagnostic testing of a batch of 150 oysters.*

| | Cytology | Histology | PCR |
|---|---|---|---|
| Consumables | $54.00 | - | $862.50 |
| Cost/Time to product (includes time or outsource cost for histology) | 8.125hrs @$22.39/hr =$181.92 | 150 @$10/block =$1,500.00 | 12.5hrs @$27.82/hr =$348 |
| Minutes to result | 12.5hrs @$37.23/hr =$465.37 | 12.5hrs @$37.23/hr =$465.37 | - |
| Total Cost for comparison | $701.29 | $1,965.37 | $1,210.25 |

Cytological diagnosis costs only 58% of that using PCR tests, however, the benefit of PCR tests has been demonstrated through this project (and FRDC2001/214) by the identification of *Marteilia sydneyi* in oyster samples from an extra 13 estuaries presumed to be negative (= below detectable limits) from cytological examination. As such, we would recommend the adoption of PCR as a presumptive test for QX disease.

**CONCLUSION:**

Through our optimisation of the original PCR test for *Marteilia sydneyi* provided by Kleeman & Adlard (2000) and its validation against field samples, we are confident that the resultant protocol is appropriate for use as a standard diagnostic procedure for QX disease. Cost/benefit analysis supports PCR testing as a preferred diagnostic procedure in surveillance activities. It is further recommended that confirmatory diagnosis based on DNA probe in situ hybridisation (ISH) or transmission electron microscopy (see OIE Diagnostic Manual) be undertaken on a subset of PCR positive samples from any one zone/area regardless of a lack of amplification in standard negative controls. See Appendix 1 for a full Standard Diagnostic Procedure.

**BENEFITS:**

The outcomes of this research will benefit directly the edible oyster industry in New South Wales and Queensland, by providing a validated and sensitive technique for detection of *Marteilia sydneyi*. The scientific benefit of this diagnostic technique has already been demonstrated even during the validation process, by offering novel insights into the biology and distribution of the disease.

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# APPENDIX 1.

# Australian and New Zealand Standard Diagnostic Procedure: QX Disease (Infection with *Marteilia sydneyi*)

# **DRAFT FOR ENDORSEMENT**

# QX Disease

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***Summary***

*QX disease (marteiliosis) of Australian commercial rock oysters (*Saccostrea glomerata*) is caused by the protistan parasite* Marteilia sydneyi *(Phylum Paramyxea). It infects oysters through the epithelium of the gills and palps, is found as a transient stage in the connective tissue surrounding the gut and gonads of the oyster, and sporulates in the epithelium of the digestive tubules.*

*The disease is associated with rapid loss of condition in the oyster, resorption of gonad, and disruption of the cellular integrity of the digestive tubules resulting in oyster death due to starvation.*

*QX disease is seasonal, with initial infections occurring in a short 'pulse' of 2-4 weeks duration in the southern mid to late summer (January-February). Two proliferative phases follow infection, the first in the gills and palps, and the second in the basal lamina of the epithelial cells of the digestive tubules, finally producing sporonts containing 2 tricellular spores. The complete lifecycle of* Marteilia sydneyi *is unknown but the presence of an alternate host is strongly suspected. It has not been possible to transmit QX disease directly between oysters.*

***Identification of the agent:*** Marteilia sydneyi *can be detected in tissue imprints, histological preparations and through PCR diagnostic tests with specific confirmation provided by DNA probe in situ hybridisation or transmission electron microscopy.*

***Status of Australia and New Zealand**:* M. sydneyi *is endemic to some areas of rock oyster culture on the east coast of mainland Australia and has been found in naturally recruited* S. glomerata *on the east coast and at a low prevalence in natural beds in Western Australia. There have been no reports of* M. sydneyi *from New Zealand.*

### *Significance*

QX disease, or marteiliosis of the Sydney Rock Oyster *(Saccostrea glomerata*), is caused by the protistan parasite, *Marteilia sydneyi* (Phylum Paramyxea). The disease typically results in serious and seasonally recurrent mortalities in farmed and wild rock oysters in estuaries of eastern Australia. In severe epizootics the disease has resulted in stock mortalities exceeding 90% on some aquaculture sites (Nell & Smith, 1988). It is listed as a notifiable disease by the Office International des Epizooties (OIE) and is included on the Australian National List of Reportable Disease of Aquatic Animals.

### *Aetiology*

In the oyster, infection is through the epithelium of the gills and palps in which proliferation occurs followed by a short transient phase in the connective tissues then establishment in the basal lamina of the epithelial cells of the digestive tubules (Kleeman, Adlard & Lester, 2002). Sporulation occurs in these tissues and may persist for 6-12 weeks prior to oyster death. In some specimens spores may be identified for months after initial infection (Adlard, pers obs.).

### *Geographic distribution*

QX disease has been identified in estuaries extending from the Great Sandy Strait (25°30´S) in southern Queensland, to the Macleay River (31°S) in northern New South Wales with the last reported extension in its southern range occurring in the Georges River estuary (34°S) in 1994 (Adlard & Ernst, 1995). It has also been identified from natural populations of *S. glomerata* in Western Australia at low prevalence (Hine, pers comm).

### *Limitation statement*

Discussion in this paper will be restricted to QX Disease (marteiliosis) of *Saccostrea glomerata* in Australia. A related pathogen, *Marteilia refringens* (Aber Disease) the type species of the genus, is a lethal parasite of the European flat oyster, *Ostrea edulis*. Other species of the genus occur in a range of invertebrates, mostly identified from Europe. Further information on these species may be found in the OIE Diagnostic Manual for Aquatic Animal Diseases (OIE, 2000).

### *The Disease*

**Host range:**

QX Disease has been unambiguously identified only from the Sydney Rock Oyster, *Saccostrea glomerata* (synonyms – *Saccostrea commercialis*, *Crassostrea commercialis*) and is a lethal parasite of this oyster. Wolf (1979) speculated that *M. sydneyi* may also infect *Saccostrea echinata* since the range of this oyster overlapped with that of *S. glomerata*, however he reported only that 'cells resembling *M. sydneyi* were found in one *S. echinata*' and the report remains unconfirmed.

There has been much speculation and some scientific evidence (e.g. absence of transmission from oyster to oyster) that an alternate (or intermediate) host forms part of the lifecycle of *Marteilia sydneyi*. The most compelling evidence for the existence of a second host was provided by Audemard *et al*. (2002) who showed the involvement of the copepod, *Paracartia grani*, in the lifecycle

of *Marteilia refringens* in Europe. A second host for *M. sydneyi* remains to be identified.

**Clinical signs**

Infection in QX disease outbreaks is associated with poor condition and emaciation of infected oysters, resorption of gonads, discolouration of the digestive gland (pale in terminal stage sporulation), cessation of growth, and mortality. In the final stages of parasite development within the oyster, secondary infection with bacteria is relatively common and presents as abscesses on gills and mantle with infected oysters appearing typically thin and translucent.

**Occurrence – seasonality**

Contrary to early reports (Wolf, 1979) QX disease shows a strongly seasonal infection pattern. Initial infections occur in the southern mid to late summer (Adlard & Lester, 1996; Kleeman, Adlard & Lester, 2002) and are of short duration (2-4 weeks), which affords a local disease management opportunity with stock being brought into susceptible locations after the infection risk period. Once infected, QX disease develops in the oyster in the gills and palps, connective tissue, and finally the epithelium of the digestive tubules with spores released prior to oyster death. The time to death post-infection can vary from 2-4 months with spores being recognisable in some individuals as late as 6-7 months post-infection.

**Pathology**

Initial infection and development of *M. sydneyi* in the basal lamina of the epithelium of the gills and palps of the oyster results in epithelial hyperplasia associated with an infiltration of haemocytes in the adjacent connective tissue. Hypertrophy and fusion of gill filaments may also be observed (Kleeman, Adlard & Lester, 2002).

In contrast, little host reaction was associated with the presence of individual parasites in the connective tissue of the palps, gonad, mantle and digestive gland. However, development of parasites in the basal lamina of the digestive tubules produced both focal and extensive haemocytic infiltration, with epithelial cells tending cuboidal and metaplastic. Diapedesis of haemocytes through the epithelium of the digestive gland is common in intermediate stages of disease progression with host reaction subsiding as development reaches more terminal stages (sporulation).

## *Diagnostic tests*

**Specimens and fixation required**

Specimens should be collected using a statistically robust sampling regime. Currently, the collection of 150 oysters selected at random by GPS generated sites within digitised oyster growing areas of an estuary (zone) provides the level of detection of 2% or greater population prevalence stipulated by the OIE (Angus Cameron, AusVet).

Collected specimens should be prepared by dissection of the oyster into 2 longitudinal halves in a plane parallel with the oyster valve margins, bisecting the palps and gills, such that representative samples of all tissues occur in each half. This allows processing and fixation of the oyster tissue without exclusion of any of the available diagnostic techniques.

**Wet preparations**
Traditionally, wet preparations of oyster digestive gland were made by squashing a small piece of tissue under a glass cover-slip on a microscope slide. This technique can provide a simple and rapid diagnosis of terminal stage infections by the identification of distinctive refringent granules and spores within sporonts. The technique is limited in its resolution and can only be applied to terminal stage infections with any confidence, as such it is not recommended for surveillance programs.

**Cytological examination - tissue imprints**
Imprints are prepared by excision of approximately a $2mm^3$ piece of digestive gland (from one half of the bisected oyster – see above), remove excess water by blotting the sample on absorbent paper, then make a series of imprints against a microscope slide sufficient to fill the area of a 20x40mm cover slip. The slides are air-dried and then fixed in methanol (2-3 minutes). The samples are stained using a commercially available staining kit for blood cells (e.g. Hemacolor, Merck) in accordance with the manufacturer's instructions. After staining, rinse in tap water, allow to dry completely and mount with a cover-slip using an appropriate synthetic resin.

The parasite is 3-4 µm in size in early uninucleate/daughter cell stages (Figure 1) and may reach up to 30 µm during sporulation (Figure 2). The cytoplasm of the cells stains densely basophilic, the nucleus is eosinophilic. An observation time of 10 minutes per slide is considered sufficient to identify these stages.

Cytological examination of tissue imprints is recommended as a presumptive test for marteiliosis by the OIE Diagnostic Manual for Aquatic Animal Disease (OIE, 2000).

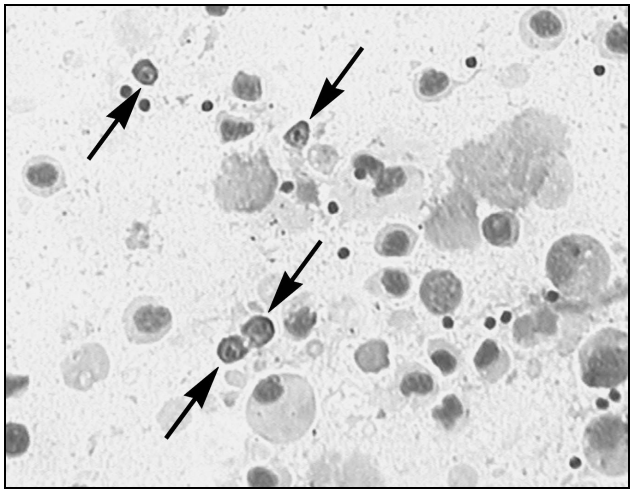

***Figure 1: Uninucleate cells of* M. sydneyi *(arrows) in stained tissue imprint (mag x400) - note peripheral cytoplasm is dense and darkly stained.***

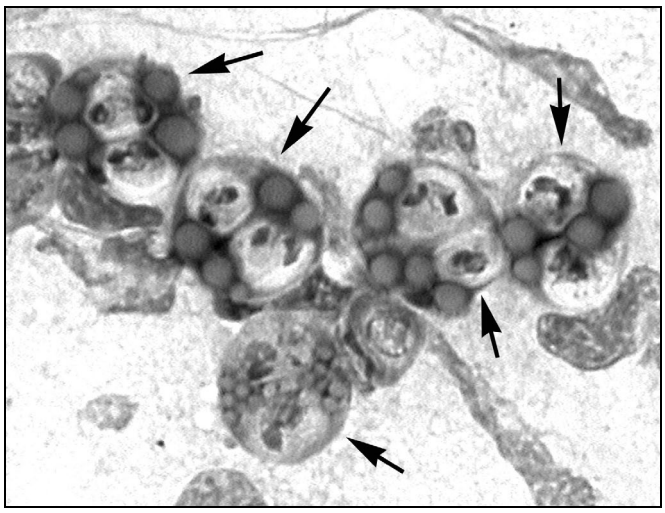

***Figure 2: Stained tissue imprint of terminal stage infection. Two tricellular spores of* M. sydneyi *developing within each sporont (arrows). Note spherical refringent granules within sporont membrane (mag x1000).***

## Histopathology

One half of the bisected oyster should be preserved in formalin (10%v/v) made up in artificial seawater for histology and/or DNA probe in situ hybridisation (ISH) if required for confirmatory diagnosis. Note that neither Davidson's nor Carson's fixatives (see OIE, 2000) are recommended if confirmatory diagnosis is to be based on ISH.

The samples are subsequently handled in accordance with classical histological methods, paraffin embedding, 5-7µm sectioning, staining with haematoxylin/eosin (see Chapter I.2. of OIE Diagnostic Manual for Aquatic Animal Disease, 2000).

Early developmental stages of *Marteilia sydneyi* are present in the epithelia of the gills and palps and in the connective tissue surrounding the digestive glands (Figure 3). Later developmental stages can be found in the epithelia of the digestive tubules where sporonts containing 2 spores and distinctive refringent bodies develop within plasmodia (Figure 4). The unique feature of internal cleavage to produce cells within cells during sporulation differentiates *Marteilia* spp. from all other protista (OIE, 2000).

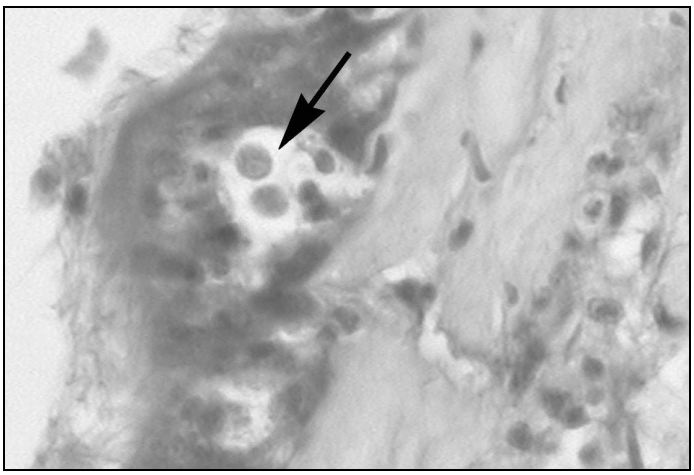

***Figure 3: Haematoxylin and eosin stained tissue section showing early stage infection (arrow) of* M. sydneyi *in the epithelium of the gills (mag x1000)***

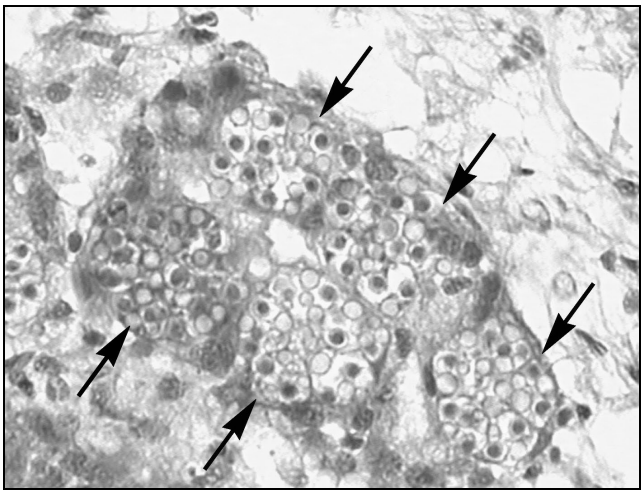

***Figure 4: H&E stained tissue section showing plasmodia (arrows) in the epithelium of the digestive tubules of* S. glomerata. *Within the plasmodia are developing sporonts and spores of* M. sydneyi. *Late stage infection (mag x400).***

## PCR standard protocol

The following standard PCR protocol, which targets an approximately 200bp region of the ITS1 of rDNA, has proven to be the most sensitive test for the presence of *M. sydneyi*, will detect the disease at subclinical levels, and is recommended for presumptive diagnosis of QX disease in surveillance programs. It has been shown to be specific for *Marteilia sydneyi* when compared against congener *M. refringens* and member of the sister genus *Marteiliodes chungmuensis* (see Kleeman, Le Roux, Berthe & Adlard, 2002).

Excise approximately a 2mm$^3$ piece of digestive gland from the remaining bisected half oyster and place directly into DNA extraction buffer (50mM Tris pH8, 5mM EDTA pH8, 100mM NaCl) in a micro-centrifuge tube. The remainder of this sample should be preserved in 90-100% (v/v) ethanol as a DNA archive.

*DNA extraction*

Total genomic DNA is extracted from sub-samples of digestive gland tissue from each oyster. Extractions may be performed using either commercially available standard DNA tissue extraction kits (e.g. DNeasy Tissue Kit, Qiagen) or standard Proteinase-K digestion, phenol/chloroform extraction and ethanol precipitation as described in Kleeman and Adlard (2000) and Kleeman, Adlard & Lester (2002).

*PCR protocol*

For each batch of PCR reactions performed, a negative control (i.e. a PCR reaction containing no DNA template), and a positive control (i.e. a PCR reaction containing DNA from a known *Marteilia sydneyi* infected sample), should be included. The former to ensure that the presence of an amplified product is not due to contamination of the PCR reagents, and the latter to ensure that the absence of any amplified product is not a result of a failed reaction.

All PCR reactions, including the controls, are carried out in 25µl volume under the following reaction conditions:

*Reagents*

| **PCR reagents/sample** | **Volume** | **Final conc./sample** |
|---|---|---|
| Water (molecular biology grade) | 14.35µl | |
| 10x *Taq* polymerase buffer | 2.5µl | 1x |
| 10mM dNTPS | 2.0µl | 0.8mM |
| 10µM Primer LEG1 | 1.0µl | 0.4µM |
| 10µM Primer PRO2 | 1.0µl | 0.4µM |
| 25mM $MgCl_2$ | 2.0µl | 2.0mM |
| *Taq* polymerase | 0.15µl | 0.75 Units |
| Genomic DNA template | 2.0µl | 20-50ng |

*Primer sequences (ITS1 region)*

The following primers have been shown to confer species level specificity to the PCR test (see Kleeman & Adlard, 2000):

| **Primer Name** | **Primer direction** | **Primer Sequence 5'-3'** |
|---|---|---|
| LEG1 | forward | CGA TCT GTG TAG TCG GAT TCC GA |
| PRO2 | reverse | TCA AGG GAC ATC CAA CGG TC |

*PCR Cycling Parameters*

The *Taq* polymerase used in the optimised reaction protocol is a hot-start polymerase (e.g. Applied Biosystems Ampli*Taq* Gold) that requires a 5-10 minute initial denaturation cycle prior to the commencement of the remaining cycle parameters.

a) Initial denaturation 95$^{o}$C for 10 min.

b) Denaturation95°C for 30 sec
Annealing ...55°C for 30 sec } x 35 cycles
Extension....72°C for 30 sec

c) Final Extension72°C for 5 min
.....22°C for 30 sec

*Visualising amplified products*
The examination for the presence or absence of an amplified product of approximately 200bp in length (presumptive diagnosis of *Marteilia sydneyi*) is conducted by electrophoresis of 10µl of PCR product through submarine agarose gels (1.4% w/v) and examined and photographed under ultra-violet light. A molecular weight standard (e.g. 100bp DNA ladder, MBI Fermentas) should be used to estimate the size of any products.

## *Confirmatory testing*

### In situ DNA probe hybridisation

It is recommended that the DNA probe developed within the internal transcribed spacer region (ITS1) of the rDNA gene cluster be used for in situ hybridisation tests (see protocol detailed in Kleeman & Adlard, 2000) as confirmation of the specific identity of *Marteilia sydneyi*.

ISH should be carried out for specific confirmation on a subset of PCR, histological or cytological positive samples from any one zone/area. PCR positives should not be accepted as valid, regardless of a lack of amplification in standard negative controls, until available confirmatory tests have been undertaken. Subsequent histological examination may provide histo-pathological signs consistent with infection by *M. sydneyi* but may fail to identify unambiguously the presence of the parasite.

ISH will provide visualisation of individual parasites at all stages of development (see Kleeman, Adlard & Lester, 2002) (Figure 5).

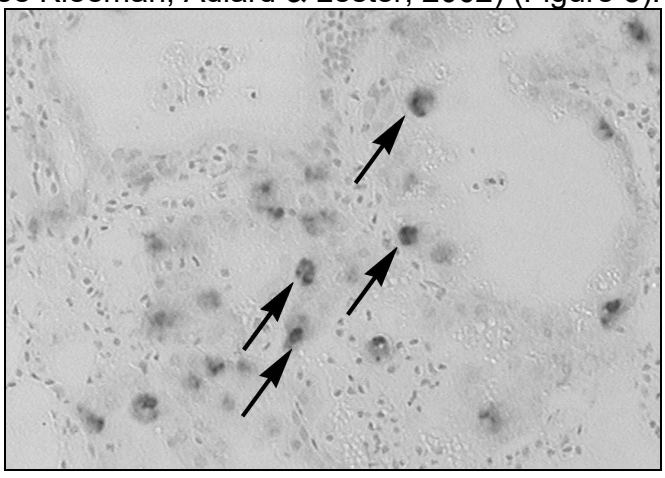

***Figure 5: DNA probe in situ hybridisation to* M. sydneyi *stages (arrows) during initial phase of infection in the epithelium of the digestive tubules of* S. glomerata*. Counterstain Bismark Brown (mag x200).***

### Transmission electron microscopy

The OIE Diagnostic Manual for Aquatic Animal Disease (OIE, 2000) recommends transmission electron microscopy for confirmatory diagnosis of *Marteilia* spp. (see Chapter I.2. of the Manual*)*. *Marteilia sydneyi* can be differentiated from *M. refringens* by a lack of striated inclusions in the plasmodia, formation of eight to sixteen sporangial primordia in each plasmodium (instead of eight for *M. refringens*) (OIE, 2000). In contrast to *Marteilia refringens* (Aber disease of the European flat oyster) in which sporonts contain 4 spores, *M. sydneyi* develops sporonts with consistently only 2 spores, a specific diagnostic feature also observable in well-prepared and stained tissue imprints.

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# APPENDIX 2.

# Staff List

Dr Robert D. Adlard – Principle Investigator

Dr Jessica Worthington Wilmer – Research Officer (this project)

Dr Stephen Wesche – Research Officer (FRDC2001/214)

Dr Malcolm Bryant – Senior Museum Technician

# APPENDIX 3.

# DNA / PCR Screening Raw Data

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | 18s PCR |
|---|---|---|---|---|---|---|---|
| Southern Moreton Bay (SMB) | 5247 | positive | 1x | multiple (optimisation) | positive | | |
| Southern Moreton Bay (SMB) | 5250 | positive | 1x | multiple (optimisation) | positive | | |
| | | | | | | | |
| Southern Moreton Bay (SMB) | 5208 | negative | 1x | 3x | positive | positive | negative |
| Southern Moreton Bay (SMB) | 5209 | negative | 1x | 3x | positive | positive | negative |
| Southern Moreton Bay (SMB) | 5210 | negative | 1x | 3x | positive | negative | negative |
| Southern Moreton Bay (SMB) | 5211 | negative | 1x | 3x | positive | positive | negative |
| Southern Moreton Bay (SMB) | 5212 | negative | 1x | 3x | positive | positive | negative |
| Southern Moreton Bay (SMB) | 5213 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5214 | negative | 1x | 3x | positive | negative | positive |
| Southern Moreton Bay (SMB) | 5215 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5216 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 5217 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 5218 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 5219 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5220 | negative | 1x | 3x | positive | positive | negative |
| Southern Moreton Bay (SMB) | 5221 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5222 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5223 | negative | 1x | 3x | positive | negative | negative |
| Southern Moreton Bay (SMB) | 5224 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 5225 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 5226 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 5227 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 6262 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6263 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6264 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6265 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6266 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6267 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6268 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6269 | negative | 1x | 1x | positive | | |
| Southern Moreton Bay (SMB) | 6270 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6271 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6272 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6273 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6274 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6275 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6276 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6277 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6278 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 6279 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6280 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6281 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6282 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6283 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6284 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6285 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6286 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6287 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6288 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6289 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6290 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6291 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6292 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6293 | negative | 1x | 3x | positive | negative | negative |
| Southern Moreton Bay (SMB) | 6294 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 6295 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6296 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6297 | negative | 1x | 3x | positive | positive | positive |
| Southern Moreton Bay (SMB) | 6298 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6299 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6300 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 6301 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7870 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7871 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7872 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7873 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7874 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Southern Moreton Bay (SMB) | 7875 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7876 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7877 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7878 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7879 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7880 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7881 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7882 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7883 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7884 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7885 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7886 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7887 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7888 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7889 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7890 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7891 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7892 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7893 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7894 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7895 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7896 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7897 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7898 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7899 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7900 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7901 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7902 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7903 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7904 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7905 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7906 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7907 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7908 | negative | 1x | 1x | negative | | |
| Southern Moreton Bay (SMB) | 7909 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | 18s PCR |
|---|---|---|---|---|---|---|---|
| Central Moreton Bay (CMB) | 7958 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7959 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7960 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7961 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7962 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7963 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7964 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7965 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7966 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7967 | negative | 1x | 3x | positive | negative | negative |
| Central Moreton Bay (CMB) | 7968 | negative | 1x | 3x | positive | positive | positive |
| Central Moreton Bay (CMB) | 7969 | negative | 1x | 3x | positive | positive | positive |
| Central Moreton Bay (CMB) | 7970 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7971 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7972 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7973 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7974 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7975 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7976 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7977 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7978 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7979 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7980 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7981 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7982 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7983 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7984 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7985 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7986 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7987 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7988 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7989 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7990 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7991 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7992 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7993 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7994 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7995 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7996 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7997 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7998 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 7999 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8000 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8001 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8002 | negative | 1x | 3x | positive | positive | negative |
| Central Moreton Bay (CMB) | 8003 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8004 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8005 | negative | 1x | 3x | positive | positive | negative |
| Central Moreton Bay (CMB) | 8006 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8007 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8008 | negative | 1x | 3x | positive | positive | negative |
| Central Moreton Bay (CMB) | 8009 | negative | 1x | 3x | positive | positive | negative |
| Central Moreton Bay (CMB) | 8010 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8011 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8012 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8013 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8014 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8015 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8016 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Central Moreton Bay (CMB) | 8017 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8018 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8019 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8020 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8021 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8022 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8023 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8024 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8025 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8026 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8027 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8028 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8029 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8030 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8031 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8032 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8033 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8034 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8035 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8036 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8037 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8038 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8039 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8040 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8041 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8042 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8043 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8044 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8045 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8046 | negative | 1x | 3x | positive | negative | negative |
| Central Moreton Bay (CMB) | 8047 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8048 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8049 | negative | 1x | 3x | positive | negative | negative |
| Central Moreton Bay (CMB) | 8050 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8051 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8052 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8053 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8054 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8055 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8056 | negative | 1x | 1x | negative | | |
| Central Moreton Bay (CMB) | 8057 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | 18s PCR |
|---|---|---|---|---|---|---|---|
| Northern Moreton Bay (NMB) | 8870 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8871 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8872 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8873 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8874 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8875 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8876 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8877 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8878 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8879 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8880 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8881 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8882 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8883 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8884 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8885 | negative | 1x | 2x | positive | negative | negative |
| Northern Moreton Bay (NMB) | 8886 | negative | 1x | 2x | positive | negative | negative |
| Northern Moreton Bay (NMB) | 8887 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8888 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8889 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8890 | negative | 1x | 3x | positive | positive | positive |
| Northern Moreton Bay (NMB) | 8891 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8892 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8893 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8894 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8895 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8896 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8897 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8898 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8899 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8900 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8901 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8902 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8903 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8904 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8905 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8906 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8907 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8908 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8909 | negative | 1x | 2x | negative | | negative |
| Northern Moreton Bay (NMB) | 8910 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8911 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8912 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8913 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8914 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8915 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8916 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8917 | negative | 1x | 3x | positive | positive | negative |
| Northern Moreton Bay (NMB) | 8918 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8919 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8920 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8921 | negative | 1x | 3x | positive | positive | negative |
| Northern Moreton Bay (NMB) | 8922 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8923 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8924 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8925 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8926 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8927 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8928 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8929 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8930 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8931 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Northern Moreton Bay (NMB) | 8932 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8933 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8934 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8935 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8936 | negative | 1x | 3x | positive | positive | positive |
| Northern Moreton Bay (NMB) | 8937 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8938 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8939 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8940 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8941 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8942 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8943 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8944 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8945 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8946 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8947 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8948 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8949 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8950 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8951 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8952 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8953 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8954 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8955 | negative | 1x | 3x | positive | positive | positive |
| Northern Moreton Bay (NMB) | 8956 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8957 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8958 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8959 | negative | 1x | 3x | positive | positive | negative |
| Northern Moreton Bay (NMB) | 8960 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8961 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8962 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8963 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8964 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8965 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8966 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8967 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8968 | negative | 1x | 1x | negative | | |
| Northern Moreton Bay (NMB) | 8969 | negative | 1x | 3x | positive | positive | positive |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | |
|---|---|---|---|---|---|---|---|
| Georges River (GR) | 8459 | positive | 1x | multiple (optimisation | positive | | |
| Georges River (GR) | 8465 | positive | 1x | multiple (optimisation | positive | | |
| Georges River (GR) | 8474 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8482 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8483 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8485 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8487 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8488 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8491 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8501 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8504 | positive | 1x | 2x | positive | positive | |
| Georges River (GR) | 8508 | positive | 1x | 3x | positive | positive | positive |
| Georges River (GR) | 8515 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8520 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8523 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8524 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8539 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8552 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8555 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8557 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8566 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8574 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8584 | positive | 1x | 2x | positive | positive | |
| Georges River (GR) | 8593 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8599 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8602 | positive | 1x | 2x | positive | positive | |
| Georges River (GR) | 8607 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8614 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8617 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10371 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10373 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10374 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10382 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10395 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10413 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10427 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10432 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10434 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10446 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 10447 | positive | 1x | 1x | positive | | |
| Georges River (GR) | 8458 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8460 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8461 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8462 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8463 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8466 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8467 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8468 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8469 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8470 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8471 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8472 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8473 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8475 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8476 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8477 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8478 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8479 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8480 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8481 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8484 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8486 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8489 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8490 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8492 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8493 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8494 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8495 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8496 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8497 | negative | 1x | 1x | Negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Georges River (GR) | 8498 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8499 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8500 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8502 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8503 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8505 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8506 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8507 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8509 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8510 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8511 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8512 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8513 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8514 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8516 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8517 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8518 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8519 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 8521 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10370 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10372 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10375 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10376 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10377 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10378 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10379 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10380 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10381 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10383 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10384 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10385 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10386 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10387 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10388 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10389 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10390 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10391 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10392 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10393 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10394 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10396 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10397 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10398 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10399 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10400 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10401 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10402 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10403 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10405 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10406 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10407 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10408 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10409 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10410 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10411 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10412 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10414 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10415 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10416 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10417 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10418 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10419 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10420 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10421 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10422 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10423 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10424 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10425 | negative | 1x | 1x | Negative | | |
| Georges River (GR) | 10426 | negative | 1x | 1x | Negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result |
|---|---|---|---|---|---|---|
| Clarence River (CR) | 5263 | positive | 1x | multiple (optimisation) | positive | |
| Clarence River (CR) | 5266 | positive | 1x | multiple (optimisation) | positive | |
| Clarence River (CR) | 5267 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5270 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5271 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5277 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5279 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5283 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5290 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5293 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5295 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5296 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5301 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5307 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5309 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5312 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5314 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5326 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5328 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5331 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5340 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5342 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5350 | positive | 2x | Extn 1 - 3x; extn 2 - 1x | negative | negative |
| Clarence River (CR) | 5352 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5358 | positive | 2x | Extn 1 - 3x; extn 2 - 1x | negative | negative |
| Clarence River (CR) | 5360 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5368 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5369 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5370 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5373 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5375 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5380 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5387 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5396 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5398 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5405 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5407 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5413 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5414 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5428 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5431 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5442 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5443 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5445 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5449 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5452 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5457 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5461 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5469 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5471 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5482 | positive | 1x | 3x | positive | positive |
| Clarence River (CR) | 5484 | positive | 1x | 2x | positive | positive |
| Clarence River (CR) | 5493 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5495 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5500 | positive | 1x | 1x | positive | |
| Clarence River (CR) | 5262 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5264 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5265 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5268 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5269 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5272 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5273 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5274 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5275 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5276 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5278 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5280 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5281 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5282 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5284 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5285 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5286 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5287 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5288 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5289 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5291 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5292 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5294 | negative | 1x | 1x | negative | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Clarence River (CR) | 5297 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5298 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5299 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5300 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5302 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5303 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5304 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5305 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5306 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5308 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5310 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5311 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5313 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5315 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5316 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5317 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5318 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5319 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5320 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5321 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5322 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5323 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5324 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5325 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5327 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5329 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5330 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5332 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5333 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5334 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5335 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5336 | negative | 1x | 2x | positive | negative |
| Clarence River (CR) | 5337 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5338 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5339 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5341 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5343 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5344 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5345 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5346 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5347 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5349 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5351 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5353 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5354 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5355 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5356 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5357 | negative | 1x | 2x | positive | positive |
| Clarence River (CR) | 5359 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5361 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5362 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5363 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5364 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5365 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5366 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5367 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5372 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5374 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5376 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5377 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5379 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5381 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5382 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5383 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5584 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5385 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5386 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5388 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5389 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5390 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5391 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5392 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5393 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5394 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5395 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5397 | negative | 1x | 1x | negative | |
| Clarence River (CR) | 5399 | negative | 1x | 1x | negative | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Richmond River (RR) | 6012 | positive | 1x | multiple (optimisation) | positive | | |
| Richmond River (RR) | 6014 | positive | 1x | multiple (optimisation) | positive | | |
| Richmond River (RR) | 6016 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6017 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6018 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6022 | positive | 2x | 3x | negative | negative | positive |
| Richmond River (RR) | 6026 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6030 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6031 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6033 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6037 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6040 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6041 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6042 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6043 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6045 | positive | 1x | multiple (optimisation) | positive | | |
| Richmond River (RR) | 6046 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6050 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6052 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6054 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6055 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6057 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6062 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6064 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6065 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6066 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6069 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6073 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6074 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6076 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6082 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6086 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6090 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6091 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6093 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6094 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6099 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6104 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6109 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6111 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6112 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6117 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6119 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6120 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6124 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6132 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6138 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6141 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6143 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6147 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6148 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6150 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6152 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6167 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6168 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6171 | positive | 1x | 2x | negative | positive | |
| Richmond River (RR) | 6188 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6189 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6190 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6192 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6193 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6194 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6197 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6198 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6199 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6201 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6202 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6204 | positive | 1x | 1x | positive | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Richmond River (RR) | 6205 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6206 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6207 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6208 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6209 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6210 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6212 | positive | 2x | 3x | negative | negative | positive |
| Richmond River (RR) | 6214 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6216 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6217 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6219 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6221 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6226 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6229 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6232 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6236 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6237 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6241 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6242 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6243 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6244 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6245 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6246 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6248 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6249 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6250 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6251 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6252 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6253 | positive | 2x | 3x | negative | negative | positive |
| Richmond River (RR) | 6254 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6255 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6258 | positive | 1x | 1x | positive | | |
| Richmond River (RR) | 6259 | positive | 1x | 1x | positive | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Merimbula (MB) | 9620 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9621 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9622 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9623 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9624 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9625 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9626 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9627 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9628 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9629 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9630 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9631 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9632 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9633 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9634 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9635 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9636 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9637 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9638 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9639 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9640 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9641 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9642 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9643 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9644 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9645 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9646 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9647 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9648 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9649 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9650 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9651 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9652 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9653 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9654 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9655 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9656 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9657 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9658 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9659 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9660 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9661 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9662 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9663 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9664 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9665 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9666 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9667 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9668 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9669 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9670 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9671 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9672 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9673 | negative | 2x | 3x | positive | positive | positive |
| Merimbula (MB) | 9674 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9675 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9676 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9677 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9678 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9679 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9680 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9681 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9682 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9683 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9684 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9685 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9686 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9687 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9688 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9689 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Merimbula (MB) | 9690 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9691 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9692 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9693 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9694 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9695 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9696 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9697 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9698 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9699 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9700 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9701 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9702 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9703 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9704 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9705 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9706 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9707 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9708 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9709 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9710 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9711 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9712 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9713 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9714 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9715 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9716 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9717 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9718 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9719 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9720 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9721 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9722 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9723 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9724 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9725 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9726 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9727 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9728 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9729 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9730 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9731 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9732 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9733 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9734 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9735 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9736 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9737 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9738 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9739 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9740 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9741 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9742 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9743 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9744 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9745 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9746 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9747 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9748 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9749 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9750 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9751 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9752 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9753 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9754 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9755 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9756 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9757 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9758 | negative | 1x | 1x | negative | | |
| Merimbula (MB) | 9759 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Narooma (NA) | 9870 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9871 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9872 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9873 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9874 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9875 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9876 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9877 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9878 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9879 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9880 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9881 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9882 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9883 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9884 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9885 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9886 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9887 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9888 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9889 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9890 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9891 | negative | 1x | 2x | positive | negative | |
| Narooma (NA) | 9892 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9893 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9894 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9895 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9896 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9897 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9898 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9899 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9900 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9901 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9902 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9903 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9904 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9905 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9906 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9907 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9908 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9909 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9910 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9911 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9912 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9913 | negative | 1x | 2x | positive | negative | |
| Narooma (NA) | 9914 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9915 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9916 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9917 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9918 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9919 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9920 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9921 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9922 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9923 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9924 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9925 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9926 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9927 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9928 | negative | 1x | 2x | positive | negative | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Narooma (NA) | 9929 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9930 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9931 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9932 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9933 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9934 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9935 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9936 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9937 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9938 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9939 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9940 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9941 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9942 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9943 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9944 | negative | 1x | 2x | positive | negative | |
| Narooma (NA) | 9945 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9946 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9947 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9948 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9949 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9950 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9951 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9952 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9953 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9954 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9955 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9956 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9957 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9958 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9959 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9960 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9961 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9962 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9963 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9964 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9965 | negative | 2x | 3x | positive | positive | negative |
| Narooma (NA) | 9966 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9967 | negative | 2x | 3x | positive | positive | positive |
| Narooma (NA) | 9968 | negative | 1x | 1x | negative | | |
| Narooma (NA) | 9969 | negative | 2x | 3x | positive | positive | negative |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Tuross Lake (TL) | 9370 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9371 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9372 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9373 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9374 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9375 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9376 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9377 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9378 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9379 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9380 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9381 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9382 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9383 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9384 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9385 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9386 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9387 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9388 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9389 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9390 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9391 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9392 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9393 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9394 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9395 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9396 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9397 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9398 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9399 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9400 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9401 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9402 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9403 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9404 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9405 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9406 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9407 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9408 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9409 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9410 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9411 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9412 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9413 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9414 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9415 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9416 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9417 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9418 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9419 | negative | 1x | 2x | positive | positive | positive |
| Tuross Lake (TL) | 9420 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9421 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9422 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9423 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9424 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9425 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9426 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9427 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9428 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Tuross Lake (TL) | 9429 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9430 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9431 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9432 | negative | 2x | 3x | positive | positive | positive |
| Tuross Lake (TL) | 9433 | negative | 1x | 2x | positive | negative | |
| Tuross Lake (TL) | 9434 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9435 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9436 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9437 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9438 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9439 | negative | 1x | 1x | positive | | |
| Tuross Lake (TL) | 9440 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9441 | negative | 1x | 2x | positive | positive | negative |
| Tuross Lake (TL) | 9442 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9443 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9444 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9445 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9446 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9447 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9448 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9449 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9450 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9451 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9452 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9453 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9454 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9455 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9456 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9457 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9458 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9459 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9460 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9461 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9462 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9463 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9464 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9465 | negative | 2x | 3x | positive | positive | negative |
| Tuross Lake (TL) | 9466 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9467 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9468 | negative | 1x | 1x | negative | | |
| Tuross Lake (TL) | 9469 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Batemans Bay (BB) | 10158 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10159 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10160 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10161 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10162 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10163 | negative | 1x | 2x | positive | negative | |
| Batemans Bay (BB) | 10164 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10165 | negative | 1x | 2x | positive | negative | |
| Batemans Bay (BB) | 10166 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10167 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10168 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10169 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10170 | negative | 2x | 3x | positive | positive | negative |
| Batemans Bay (BB) | 10171 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10172 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10173 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10174 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10175 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10176 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10177 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10178 | negative | 2x | 3x | positive | positive | negative |
| Batemans Bay (BB) | 10179 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10180 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10181 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10182 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10183 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10184 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10185 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10186 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10187 | negative | 2x | 3x | positive | positive | negative |
| Batemans Bay (BB) | 10188 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10189 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10190 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10191 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10192 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10193 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10194 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10195 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10196 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10197 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10198 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10199 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10200 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10201 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10202 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10203 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10204 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10205 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10206 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10207 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10208 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10209 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10210 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10211 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10212 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10213 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10214 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10215 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10216 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10217 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batemans Bay (BB) | 10218 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10219 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10220 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10221 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10222 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10223 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10224 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10225 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10226 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10227 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10228 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10229 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10230 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10231 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10232 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10233 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10234 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10235 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10236 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10237 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10238 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10239 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10240 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10241 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10242 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10243 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10244 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10245 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10246 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10247 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10248 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10249 | negative | 2x | 3x | positive | positive | negative |
| Batemans Bay (BB) | 10250 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10251 | negative | 2x | 3x | positive | negative | negative |
| Batemans Bay (BB) | 10252 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10253 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10254 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10255 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10256 | negative | 1x | 1x | negative | | |
| Batemans Bay (BB) | 10257 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result |
|---|---|---|---|---|---|
| Crookhaven/Shoalhaven (CS) | 9120 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9121 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9122 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9123 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9124 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9125 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9126 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9127 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9128 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9129 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9130 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9131 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9132 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9133 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9134 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9135 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9136 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9137 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9138 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9139 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9140 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9141 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9142 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9143 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9144 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9145 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9146 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9147 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9148 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9149 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9150 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9151 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9152 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9153 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9154 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9155 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9156 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9157 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9158 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9159 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9160 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9161 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9162 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9163 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9164 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9165 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9166 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9167 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9168 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9169 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9170 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9171 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9172 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9173 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9174 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9175 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9176 | negative | 1x | 1x | negative |

| | | | | | |
|---|---|---|---|---|---|
| Crookhaven/Shoalhaven (CS) | 9177 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9178 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9179 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9180 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9181 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9182 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9183 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9184 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9185 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9186 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9187 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9188 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9189 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9190 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9191 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9192 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9193 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9194 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9195 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9196 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9197 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9198 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9199 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9200 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9201 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9202 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9203 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9204 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9205 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9206 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9207 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9208 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9209 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9210 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9211 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9212 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9213 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9214 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9215 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9216 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9217 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9218 | negative | 1x | 1x | negative |
| Crookhaven/Shoalhaven (CS) | 9219 | negative | 1x | 1x | negative |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result |
|---|---|---|---|---|---|
| Hawkesbury River (HR) | 8620 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8621 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8622 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8623 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8624 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8625 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8626 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8627 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8628 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8629 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8630 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8631 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8632 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8633 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8634 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8635 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8636 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8637 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8638 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8639 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8640 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8641 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8642 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8643 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8644 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8645 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8646 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8647 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8648 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8649 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8650 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8651 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8652 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8653 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8654 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8655 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8656 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8657 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8658 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8659 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8660 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8661 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8662 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8663 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8664 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8665 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8666 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8667 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8668 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8669 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8670 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8671 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8672 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8673 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8674 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8675 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8676 | negative | 1x | 1x | negative |

| | | | | | |
|---|---|---|---|---|---|
| Hawkesbury River (HR) | 8677 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8678 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8679 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8680 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8681 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8682 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8683 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8684 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8685 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8686 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8687 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8688 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8689 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8690 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8691 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8692 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8693 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8694 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8695 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8696 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8697 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8698 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8699 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8700 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8701 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8702 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8703 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8704 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8705 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8706 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8707 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8708 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8709 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8710 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8711 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8712 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8713 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8714 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8715 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8716 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8717 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8718 | negative | 1x | 1x | negative |
| Hawkesbury River (HR) | 8719 | negative | 1x | 1x | negative |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Port Stephens (PS) | 8208 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8209 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8210 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8211 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8212 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8213 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8214 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8215 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8216 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8217 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8218 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8219 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8220 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8221 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8222 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8223 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8224 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8225 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8226 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8227 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8228 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8229 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8230 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8231 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8232 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8233 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8234 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8235 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8236 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8237 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8238 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8239 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8240 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8241 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8242 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8243 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8244 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8245 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8246 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8247 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8248 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8249 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8250 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8251 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8252 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8253 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8254 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8255 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8256 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8257 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8258 | negative | 2x | 3x | positive | positive | negative |
| Port Stephens (PS) | 8259 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8260 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8261 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8262 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8263 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8264 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8265 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8266 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8267 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8268 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8269 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8270 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Port Stephens (PS) | 8271 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8272 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8273 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8274 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8275 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8276 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8277 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8278 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8279 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8280 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8281 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8282 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8283 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8284 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8285 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8286 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8287 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8288 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8289 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8290 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8291 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8292 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8293 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8294 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8295 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8296 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8297 | negative | 2x | 3x | positive | positive | negative |
| Port Stephens (PS) | 8298 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8299 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8300 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8301 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8302 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8303 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8304 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8305 | negative | 1x | 2x | positive | negative | |
| Port Stephens (PS) | 8306 | negative | 1x | 1x | negative | | |
| Port Stephens (PS) | 8307 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result | PCR after 2nd extn |
|---|---|---|---|---|---|---|---|
| Wallis Lakes (WL) | 7620 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7621 | negative | 2x | 3x | positive | positive | positive |
| Wallis Lakes (WL) | 7622 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7623 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7624 | negative | 2x | 3x | positive | positive | positive |
| Wallis Lakes (WL) | 7625 | negative | 2x | 3x | positive | positive | |
| Wallis Lakes (WL) | 7626 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7627 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7628 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7629 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7630 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7631 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7632 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7633 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7634 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7635 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7636 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7637 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7638 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7639 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7640 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7641 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7642 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7643 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7644 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7645 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7646 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7647 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7648 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7649 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7650 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7651 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7652 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7653 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7654 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7655 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7656 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7657 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7658 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7659 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7660 | negative | 2x | 3x | positive | positive | negative |
| Wallis Lakes (WL) | 7661 | negative | 2x | 3x | positive | positive | positive |
| Wallis Lakes (WL) | 7662 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7663 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7664 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7665 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7666 | negative | 2x | 3x | positive | positive | negative |
| Wallis Lakes (WL) | 7667 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7668 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7669 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7670 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7671 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7672 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7673 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7674 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7675 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7676 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7677 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7678 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7679 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7680 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7681 | negative | 1x | 1x | negative | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Wallis Lakes (WL) | 7682 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7683 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7684 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7685 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7686 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7687 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7688 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7689 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7690 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7691 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7692 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7693 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7694 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7695 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7696 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7697 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7698 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7699 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7700 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7701 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7702 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7703 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7704 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7705 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7706 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7707 | negative | 2x | 3x | positive | positive | positive |
| Wallis Lakes (WL) | 7708 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7709 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7710 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7711 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7712 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7713 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7714 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7715 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7716 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7717 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7718 | negative | 1x | 1x | negative | | |
| Wallis Lakes (WL) | 7719 | negative | 1x | 1x | negative | | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result |
|---|---|---|---|---|---|
| Hastings River (HS) | 7370 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7371 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7372 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7373 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7374 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7375 | negative | 1x | 1x | **positive** |
| Hastings River (HS) | 7376 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7377 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7378 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7379 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7380 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7381 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7382 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7383 | negative | 1x | 1x | **positive** |
| Hastings River (HS) | 7384 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7385 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7386 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7387 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7388 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7389 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7390 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7391 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7392 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7393 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7394 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7395 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7396 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7397 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7398 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7399 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7400 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7401 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7402 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7403 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7404 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7405 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7406 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7407 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7408 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7409 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7410 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7411 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7412 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7413 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7414 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7415 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7416 | negative | 1x | 1x | **positive** |
| Hastings River (HS) | 7417 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7418 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7419 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7420 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7421 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7422 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7423 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7424 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7425 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7426 | negative | 1x | 1x | negative |

| | | | | | |
|---|---|---|---|---|---|
| Hastings River (HS) | 7427 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7428 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7429 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7430 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7431 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7432 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7433 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7434 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7435 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7436 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7437 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7438 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7439 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7440 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7441 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7442 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7443 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7444 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7445 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7446 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7447 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7448 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7449 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7450 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7451 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7452 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7453 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7454 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7455 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7456 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7457 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7458 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7459 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7460 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7461 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7462 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7463 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7464 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7465 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7466 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7467 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7468 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7469 | negative | 1x | 1x | negative |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result |
|---|---|---|---|---|---|
| Hastings River (HS) | 7370 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7371 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7372 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7373 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7374 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7375 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7376 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7377 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7378 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7379 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7380 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7381 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7382 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7383 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7384 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7385 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7386 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7387 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7388 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7389 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7390 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7391 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7392 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7393 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7394 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7395 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7396 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7397 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7398 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7399 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7400 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7401 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7402 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7403 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7404 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7405 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7406 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7407 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7408 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7409 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7410 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7411 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7412 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7413 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7414 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7415 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7416 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7417 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7418 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7419 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7420 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7421 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7422 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7423 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7424 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7425 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7426 | negative | 1x | 1x | negative |

| | | | | | |
|---|---|---|---|---|---|
| Hastings River (HS) | 7427 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7428 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7429 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7430 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7431 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7432 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7433 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7434 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7435 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7436 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7437 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7438 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7439 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7440 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7441 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7442 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7443 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7444 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7445 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7446 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7447 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7448 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7449 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7450 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7451 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7452 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7453 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7454 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7455 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7456 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7457 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7458 | negative | 1x | 1x | positive |
| Hastings River (HS) | 7459 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7460 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7461 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7462 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7463 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7464 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7465 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7466 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7467 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7468 | negative | 1x | 1x | negative |
| Hastings River (HS) | 7469 | negative | 1x | 1x | negative |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result |
|---|---|---|---|---|---|---|
| Brunswick River (BR) | 6370 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6371 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6372 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6373 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6374 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6375 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6376 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6377 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6378 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6379 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6380 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6381 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6382 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6383 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6384 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6385 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6386 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6387 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6388 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6389 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6390 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6391 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6392 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6393 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6394 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6395 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6396 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6397 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6398 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6399 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6400 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6401 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6402 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6403 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6404 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6405 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6406 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6407 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6408 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6409 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6410 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6411 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6412 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6413 | negative | 1x | 2x | positive | negative |
| Brunswick River (BR) | 6414 | negative | 1x | 2x | positive | negative |
| Brunswick River (BR) | 6415 | negative | 1x | 2x | positive | negative |
| Brunswick River (BR) | 6416 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6417 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6418 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6419 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6420 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6421 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6422 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6423 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6424 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6425 | negative | 1x | 2x | positive | negative |
| Brunswick River (BR) | 6426 | negative | 1x | 1x | negative | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Brunswick River (BR) | 6427 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6428 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6429 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6430 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6431 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6432 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6433 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6434 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6435 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6436 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6437 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6438 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6439 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6440 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6441 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6442 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6443 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6444 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6445 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6446 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6447 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6448 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6449 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6450 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6451 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6452 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6453 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6454 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6455 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6456 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6457 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6458 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6459 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6460 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6461 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6462 | negative | 1x | 2x | positive | positive |
| Brunswick River (BR) | 6463 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6464 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6465 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6466 | negative | 1x | 2x | positive | negative |
| Brunswick River (BR) | 6467 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6468 | negative | 1x | 1x | negative | |
| Brunswick River (BR) | 6469 | negative | 1x | 1x | negative | |

| Population | Sample Code | Imprint Classification | DNA Extracted | PCR | PCR Result | 2nd PCR Result |
|---|---|---|---|---|---|---|
| Macleay River (MR) | 7120 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7121 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7122 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7123 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7124 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7125 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7126 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7127 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7128 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7129 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7130 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7131 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7132 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7133 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7134 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7135 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7136 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7137 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7138 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7139 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7140 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7141 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7142 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7143 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7144 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7145 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7146 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7147 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7148 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7149 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7150 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7151 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7152 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7153 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7154 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7155 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7156 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7157 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7158 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7159 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7160 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7161 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7162 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7163 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7164 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7165 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7166 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7167 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7168 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7169 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7170 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7171 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7172 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7173 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7174 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7175 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7176 | negative | 1x | 2x | positive | positive |

| | | | | | | |
|---|---|---|---|---|---|---|
| Macleay River (MR) | 7177 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7178 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7179 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7180 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7181 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7182 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7183 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7184 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7185 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7186 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7187 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7188 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7189 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7190 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7191 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7192 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7193 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7194 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7195 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7196 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7197 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7198 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7199 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7200 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7201 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7202 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7203 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7204 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7205 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7206 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7207 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7208 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7209 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7210 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7211 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7212 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7213 | negative | 1x | 2x | positive | negative |
| Macleay River (MR) | 7214 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7215 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7216 | negative | 1x | 2x | positive | positive |
| Macleay River (MR) | 7217 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7218 | negative | 1x | 1x | negative | |
| Macleay River (MR) | 7219 | negative | 1x | 1x | negative | |