

## CLIENT DETAILS

Contact **John Fox**  
Client **NAMOI COTTON LIMITED**  
Address **PO BOX 1333  
TOOWOOMBA QLD 4350**

Telephone **0429 903 079**  
Facsimile **61 7 46316184**  
Email **jfox@namoicotton.com.au**

Project **MERAH NORTH WASHDOWN BAY**  
Order Number **(Not specified)**  
Samples **1**

## LABORATORY DETAILS

Manager **Huong Crawford**  
Laboratory **SGS Alexandria Environmental**  
Address **Unit 16, 33 Maddox St  
Alexandria NSW 2015**

Telephone **+61 2 8594 0400**  
Facsimile **+61 2 8594 0499**  
Email **au.environmental.sydney@sgs.com**

SGS Reference **SE176763 R0**  
Date Received **15 Mar 2018**  
Date Reported **21 Mar 2018**

## COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

## SIGNATORIES



**Ly Kim Ha**  
Organic Section Head



**Shane McDermott**  
Inorganic/Metals Chemist

Sample Number SE176763.001  
 Sample Matrix Water  
 Sample Date 09 Mar 2018  
 Sample Name Washdown Bay

| Parameter  | Units | LOR   |        |
|--|-------|-------|--------|
| <b>OP Pesticides in Water Method: AN420 Tested: 16/3/2018 (continued)</b>                                    |       |       |        |
| Surrogates   |       |       |        |
| 2-fluorobiphenyl (Surrogate)   | %     | -     | 50     |
| d14-p-terphenyl (Surrogate)  | %     | -     | 52     |
| <b>Total and Volatile Suspended Solids (TSS / VSS) Method: AN114 Tested: 20/3/2018</b>                       |       |       |        |
| Total Suspended Solids Dried at 103-105°C  | mg/L  | 5     | 450    |
| <b>Anions by Ion Chromatography in Water Method: AN245 Tested: 16/3/2018</b>                                 |       |       |        |
| Nitrate Nitrogen, NO <sub>3</sub> -N   | mg/L  | 0.005 | <0.005 |
| <b>Nitrite in Water Method: AN277 Tested: 16/3/2018</b>  |       |       |        |
| Nitrite Nitrogen, NO <sub>2</sub> as N   | mg/L  | 0.005 | <0.005 |
| <b>TKN Kjeldahl Digestion by Discrete Analyser Method: AN281/AN292(Sydney only) Tested: 19/3/2018</b>        |       |       |        |
| Total Kjeldahl Nitrogen  | mg/L  | 0.05  | 6.4    |
| Total Nitrogen (calc)  | mg/L  | 0.05  | 6.4    |
| <b>Total Phosphorus by Kjeldahl Digestion DA in Water Method: AN279/AN293(Sydney only) Tested: 19/3/2018</b> |       |       |        |
| Total Phosphorus (Kjeldahl Digestion)  | mg/L  | 0.02  | 0.76   |

MB blank results are compared to the Limit of Reporting

LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Anions by Ion Chromatography in Water Method: ME-(AU)-(ENV)AN245

| Parameter               | QC Reference | Units | LOR   | MB     | DUP %RPD | LCS %Recovery | MS %Recovery |
|-------------------------|--------------|-------|-------|--------|----------|---------------|--------------|
| Nitrate Nitrogen, NO3-N | LB143740     | mg/L  | 0.005 | <0.005 | 0%       | 98%           | 103%         |

Nitrite in Water Method: ME-(AU)-(ENV)AN277

| Parameter                  | QC Reference | Units | LOR   | MB     | DUP %RPD | LCS %Recovery |
|----------------------------|--------------|-------|-------|--------|----------|---------------|
| Nitrite Nitrogen, NO2 as N | LB143744     | mg/L  | 0.005 | <0.005 | 0%       | 100%          |

OC Pesticides in Water Method: ME-(AU)-(ENV)AN420

| Parameter               | QC Reference | Units | LOR | MB   | LCS %Recovery |
|-------------------------|--------------|-------|-----|------|---------------|
| Hexachlorobenzene (HCB) | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Alpha BHC               | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Lindane (gamma BHC)     | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Heptachlor              | LB143733     | µg/L  | 0.1 | <0.1 | 123%          |
| Aldrin                  | LB143733     | µg/L  | 0.1 | <0.1 | 122%          |
| Beta BHC                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Delta BHC               | LB143733     | µg/L  | 0.1 | <0.1 | 102%          |
| Heptachlor epoxide      | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| o,p'-DDE                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Alpha Endosulfen        | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Gamma Chlordane         | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Alpha Chlordane         | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| trans-Nonachlor         | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| p,p'-DDE                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Dieldrin                | LB143733     | µg/L  | 0.1 | <0.1 | 123%          |
| Endrin                  | LB143733     | µg/L  | 0.1 | <0.1 | 103%          |
| o,p'-DDD                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| o,p'-DDT                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Beta Endosulfen         | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| p,p'-DDD                | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| p,p'-DDT                | LB143733     | µg/L  | 0.1 | <0.1 | 114%          |
| Endosulfen sulphate     | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Endrin aldehyde         | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Methoxychlor            | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Endrin ketone           | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Isodrin                 | LB143733     | µg/L  | 0.1 | <0.1 | NA            |
| Mirex                   | LB143733     | µg/L  | 0.1 | <0.1 | NA            |

Surrogates

| Parameter                               | QC Reference | Units | LOR | MB  | LCS %Recovery |
|---|--------------|-------|-----|-----|---------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | LB143733     | %     | -   | 83% | 82%           |

MB blank results are compared to the Limit of Reporting  
 LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared to the amount of analyte spiked into the sample.  
 DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Total and Volatile Suspended Solids (TSS / VSS) Method: ME-(AU)-[ENV]AN114

| Parameter                                 | QC Reference | Units | LOR | MB | DUP %RPD | LCS %Recovery |
|---|--------------|-------|-----|----|----------|---------------|
| Total Suspended Solids Dried at 103-105°C | LB143865     | mg/L  | 5   | <5 | 3 - 7%   | 95 - 101%     |

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[ENV]AN279/AN293(Sydney only)

| Parameter                             | QC Reference | Units | LOR  | MB    | DUP %RPD | LCS %Recovery |
|---------------------------------------|--------------|-------|------|-------|----------|---------------|
| Total Phosphorus (Kjeldahl Digestion) | LB143782     | mg/L  | 0.02 | <0.02 | 1%       | 108%          |

FOOTNOTES

|     |  |     |  |
|-----|--|-----|--|
| IS  | Insufficient sample for analysis.                                  | LOR | Limit of Reporting                           |
| LNR | Sample listed, but not received.                                   | ↑↓  | Raised or Lowered Limit of Reporting         |
| *   | NATA accreditation does not cover the performance of this service. | QFH | QC result is above the upper tolerance       |
| **  | Indicative data, theoretical holding time exceeded.                | QFL | QC result is below the lower tolerance       |
|     |  | -   | The sample was not analysed for this analyte |
|     |  | NVL | Not Validated                                |

Samples analysed as received.  
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : <http://www.sgs.com.au/-/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf>

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/en/Terms-and-Conditions.aspx](http://www.sgs.com/en/Terms-and-Conditions.aspx). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.