

## CERTIFICATE OF ANALYSIS

<b>Work Order</b> : <b>WN1906417</b> <b>Client</b> : <b>MOLYCOP WARATAH (COMMONWEALTH STEEL CO)</b> <b>Contact</b> : Lisa Clarke <b>Address</b> : PO BOX 14 WARATAH NSW, AUSTRALIA 2298  <b>Telephone</b> : ---- <b>Project</b> : Monthly Drains <b>Order number</b> : PO0016790 <b>C-O-C number</b> : ---- <b>Sampler</b> : ---- <b>Site</b> : ---- <b>Quote number</b> : WN/104/16 <b>No. of samples received</b> : 2 <b>No. of samples analysed</b> : 2	<b>Page</b> : 1 of 2 <b>Laboratory</b> : ALS Water - Newcastle <b>Contact</b> : Andrea Swan <b>Address</b> : 5/585 Maitland Road Newcastle West NSW Australia 2304  <b>Telephone</b> : +61 2 4014 2500 <b>Date Samples Received</b> : 03-Sep-2019 13:14 <b>Date Analysis Commenced</b> : 05-Sep-2019 <b>Issue Date</b> : 09-Sep-2019 16:54
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Neil Martin	Team Leader - Chemistry	Chemistry, Newcastle West, NSW



## General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
 LOR = Limit of reporting  
 ^ = This result is computed from individual analyte detections at or above the level of reporting  
 ø = ALS is not NATA accredited for these tests.  
 ~ = Indicates an estimated value.

- Sample 001 shows poor matrix spike recovery due to matrix interference. Confirmed by re-extraction and re-analysis.

## Analytical Results

Sub-Matrix: WATER  
 (Matrix: WATER)

Client sample ID

				6177 - East Drain	6178 - North Drain	----	----	----
Client sampling date / time				03-Sep-2019 00:00	03-Sep-2019 00:00	----	----	----
Compound	CAS Number	LOR	Unit	WN1906417-001	WN1906417-002	-----	-----	-----
				Result	Result	---	---	---
<b>EP021: Total Oil and Grease</b>								
Total Oil and Grease	----	2	mg/L	<2	<2	----	----	----
<b>EP026SP.WN: Chemical Oxygen Demand (COD)</b>								
Chemical Oxygen Demand	----	10	mg/L	11	30	----	----	----