

ZZ EXPLORATION Pty Ltd

ABN 45 092 488 214

OCEANA WATER MONITORING REPORT – SEPTEMBER 2007 QUARTER



September Quarter 2007

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CONTENTS

EXECUTIVE SUMMARY3

1.0 INTRODUCTION.....4

2.0 WATER MONITORING SITES4

3.0 RESULTS.....4

APPENDIX A8

***Laboratory Analysis of Water Results*.....8**

EXECUTIVE SUMMARY

As per the requirement of Mineral Resources Tasmania (MRT) (letter dated 9 August 2005), an environmental water monitoring program is required to be carried out on Pyramid Creek above and below the proposed mining area for a 12 month period before mining operations commence. A water monitoring program was developed by SEMF on behalf of ZZ Exploration Pty Ltd. which made up part of the supporting documentation for the application for mining lease 2M/2005.

This report presents the water quality data of the above sites as well as those collected from Austral Creek and an abandoned mine shaft (No.6 Mine Shaft). Results are from October 2004 (Austral Creek) to September 2007.

During these sampling activities, only upper Pyramid Creek and lower Pyramid Creek samples were taken.

1.0 INTRODUCTION

ZZ Exploration Pty Ltd (ZZ Exploration) is a wholly owned subsidiary of Zeehan Zinc Limited (Zeehan Zinc), and holds Oceana Exploration License EL 20/2002 and mining lease 2M/2005 over the Oceana Mine site.

The Oceana Mine has been the subject of several phases of mining during the past two century's and there is a high probability of acid mine drainage due to the extensive historical mining and exploration activities that have occurred in the Zeehan area.

The Oceana Mine is located approximately 4km south of the township of Zeehan, on the west coast of Tasmania (Figure 1). The site has a southwest aspect and is surrounded by a mixture of native and exotic vegetation.

2.0 WATER MONITORING SITES

Water monitoring at Upper and Lower Pyramid Creek is a requirement of Mineral Resources Tasmania (letter dated 9 August 2005) for 12 months prior to the commencement of mining operations.

ZZ Exploration commenced water quality monitoring of the Pyramid Creek in October 2005, with additional water quality monitoring at the nearby Austral Creek for comparison to the Pyramid Creek results. Samples were also collected from the underground water at the Oceana Mine (No.6 Mine Shaft) starting in March 2006.

The water quality monitoring locations (shown in Figure 3) are:

- Pyramid Creek above the proposed mining area (Upper Pyramid)
- Pyramid Creek below the proposed mining area (Lower Pyramid)
- The No.6 Mine Shaft
- Austral Creek

The monitoring of Austral Creek is not a compulsory element as per the requirement of MRT (letter dated 9 August 2005). However, the sampling of Austral Creek has been undertaken to obtain information on background surface water quality in the area.

3.0 RESULTS

Physical parameters measured include conductivity, pH, Total Suspended Solids (TSS), total alkalinity (CaCO_3) and acidity (CaCO_3). The dissolved and total concentration of a suite of metals have also been measures and include Al, As, Cd, Cr, Cu, Fe, Mn, Ni, Pb and Zn.

Hardness, Ca dissolved and Mg dissolved has been added to the list of parameters and have been measures over the past two quarters. As of this quarter, Sulphate has also been added to the list of parameters.

As the Pyramid Creek and Austral Creek are exposed to historical mining and exploration activities, the water quality of both creeks are likely to have been impacted both physically and chemically.

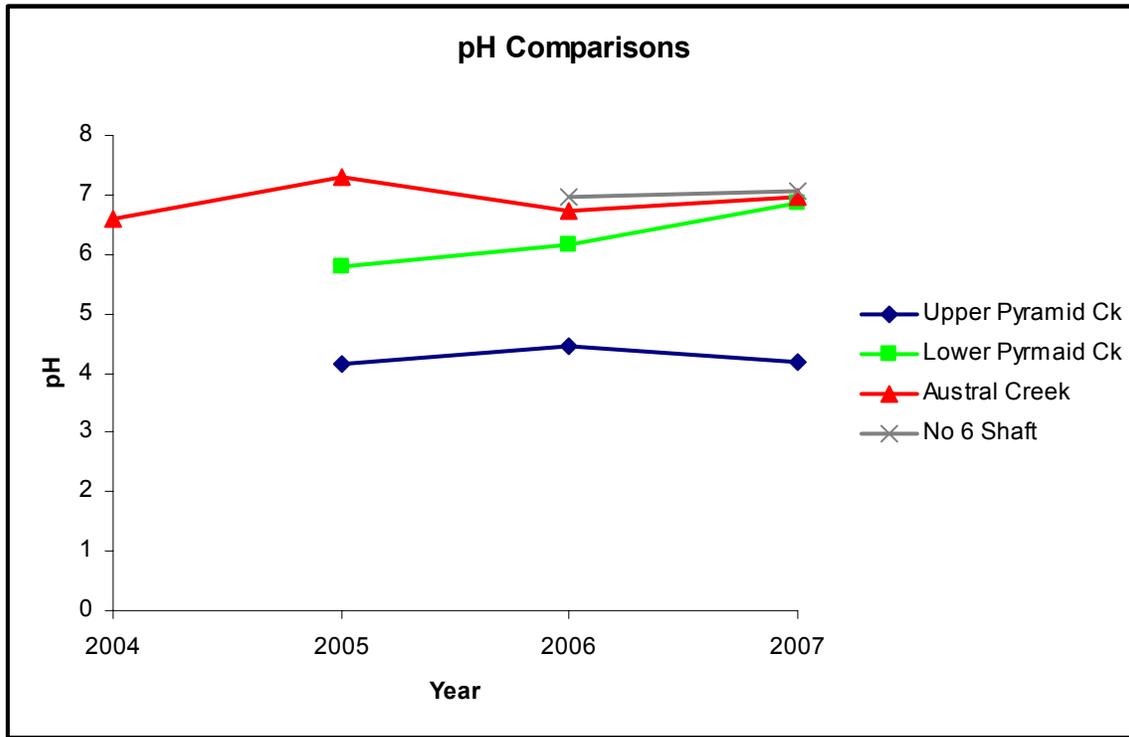


Figure 1 – Yearly averages of pH values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

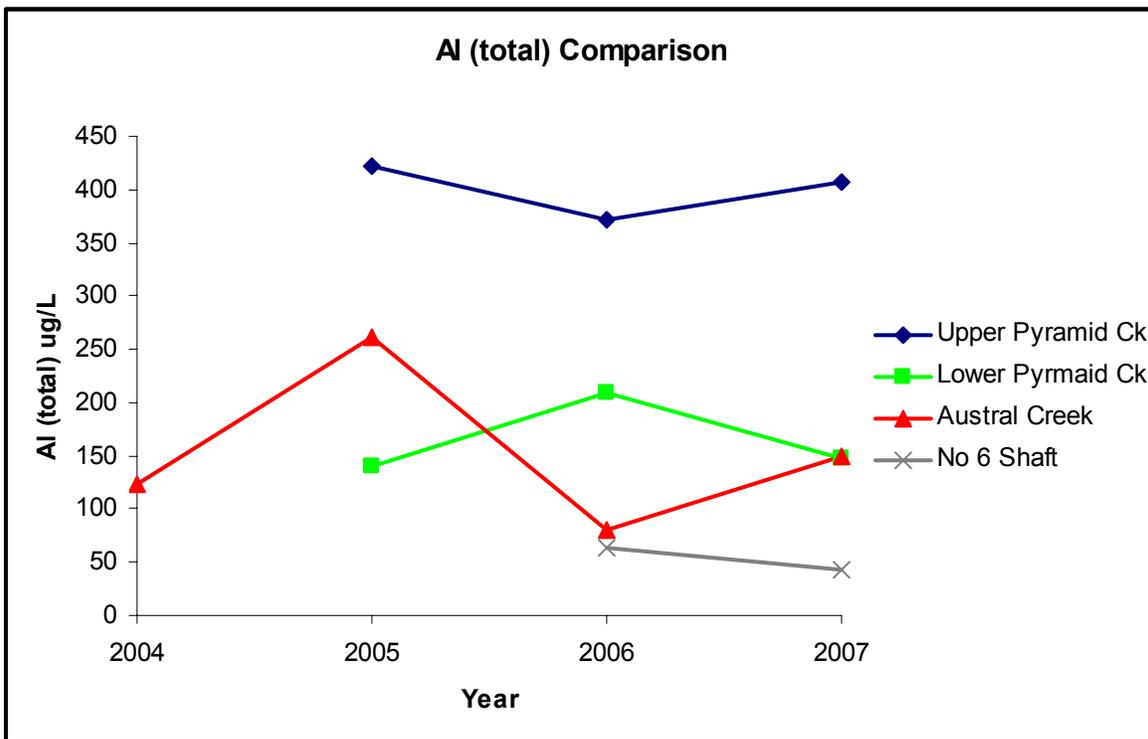


Figure 2 – Yearly averages of Al (total) values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

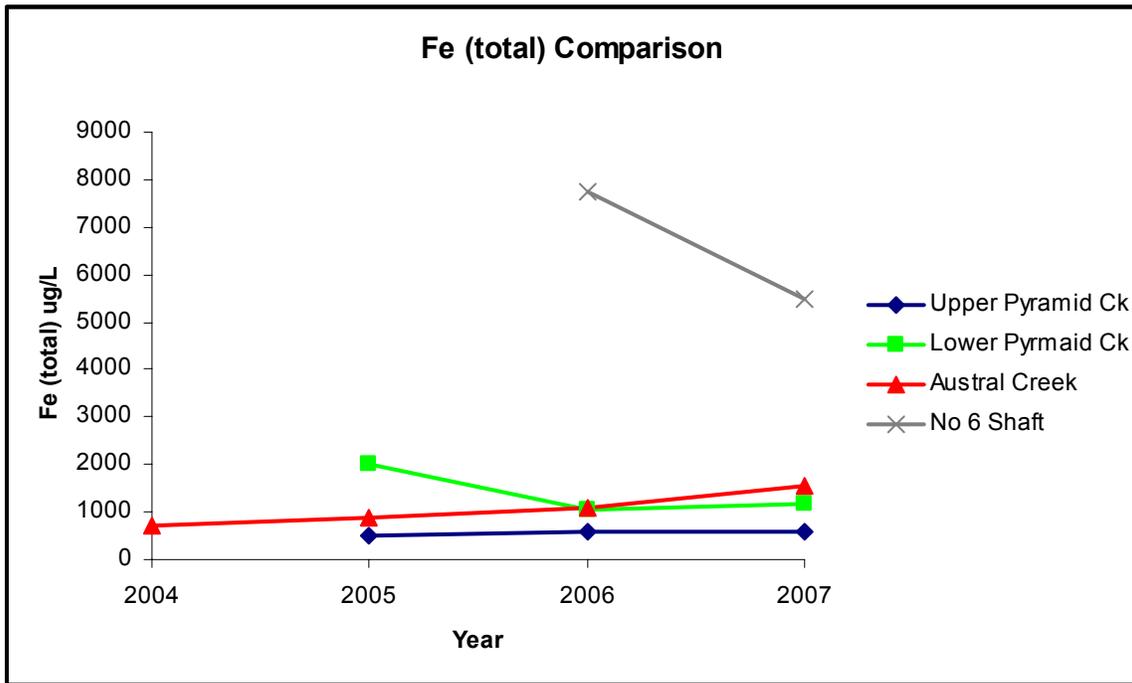


Figure 3 – Yearly averages of Fe (total) values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

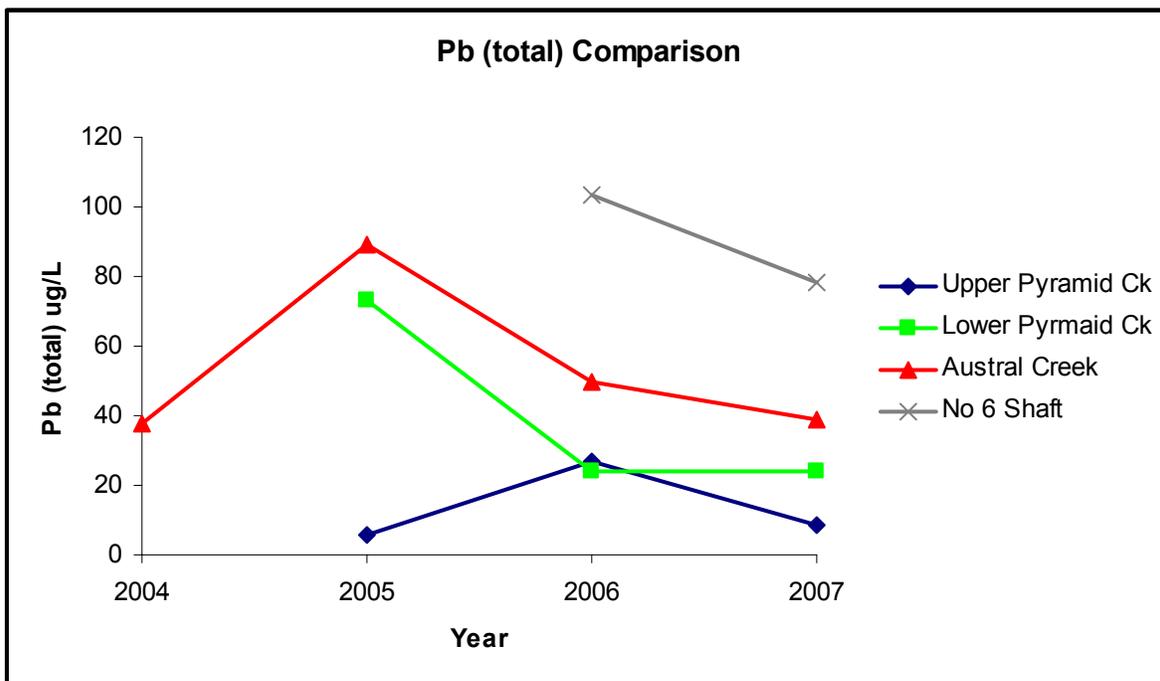


Figure 4 – Yearly averages of Pb (total) values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

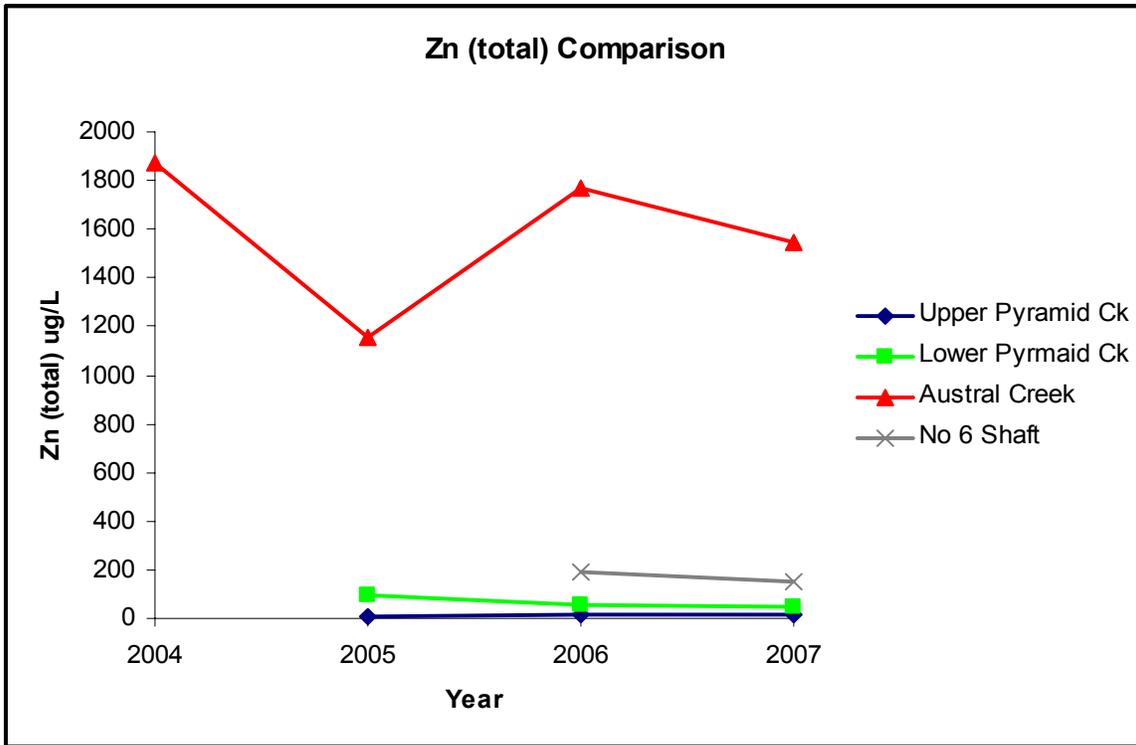


Figure 5 – Yearly averages of Zn (total) values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

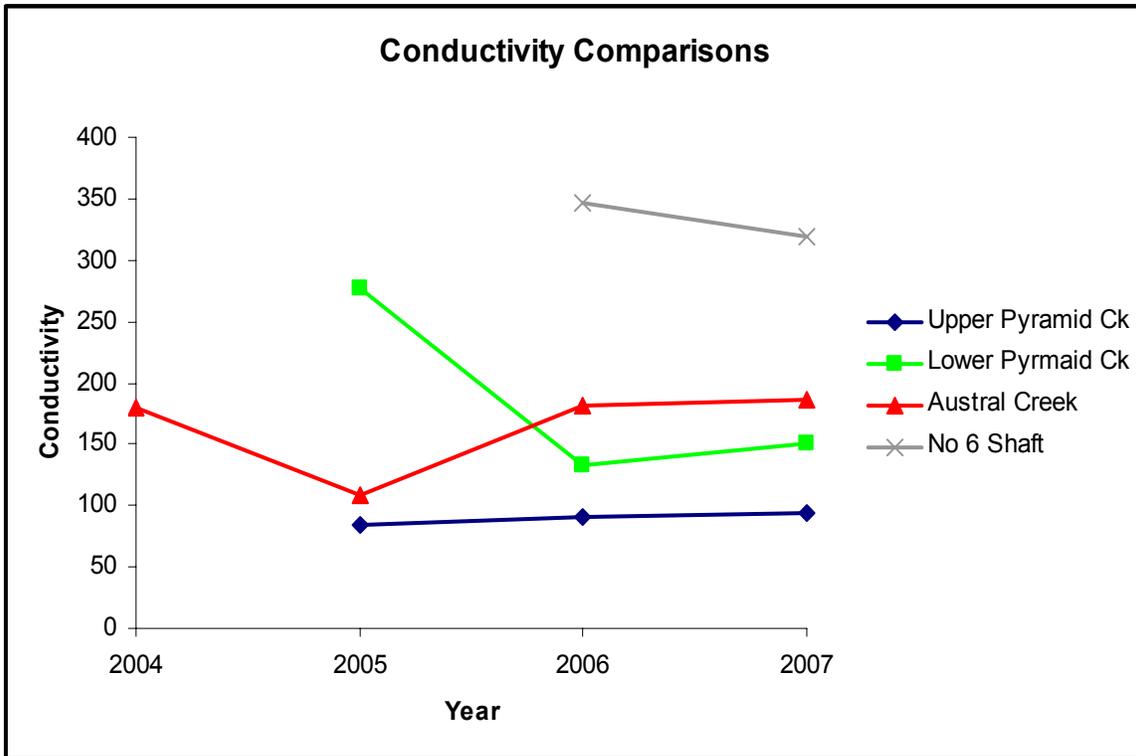


Figure 6 – Yearly averages of Conductivity values at Upper and Lower Pyramid Creek, Austral Creek and No. 6 Shaft.

APPENDIX A

Laboratory Analysis of Water Results

ANALYTICAL SERVICES TASMANIA
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Laboratory Report

Report No: 33188 Issue No: 1 Report Date 05-Oct-2007 14:36

Status: Full Report

Site Description:

Received: 17-Sep-07

Submitted to: New Town Laboratory

Submitted By: Shane Bartel

Client Order No: 1319

Report To: Shane Bartel

Client: Oceania Tasmania

Address: Level 1 199 Macquarie Street Hobart TAS 7000

The tests, calibrations or measurements covered by this document have been performed in accordance with NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to national standards of measurement.

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Samples analysed as received.



ANALYTICAL SERVICES TASMANIA

Report No: 33188 Issue No: 1 Report Date: 05-Oct-2007 14:36

Method	Analyte	Units / Sampled On :	Lab.No.: 114606	114607	114608	114609
			Sample Id.: Upper Pyramid Ck	Lower Pyramid Ck	Austral Creek	No 6 Shaft
			14/09/07 09:45	14/09/07 09:30	14/09/07 09:20	14/09/07 11:07
1001-Water	pH		4.3	6.9	6.9	6.8
1002-Water	Conductivity	µS/cm	80	142	159	387
1005-Water	TSS	mg/L	3	2	<1	16
1101-Water	Alkalinity Total	mg CaCO3/L	<2	38	25	165
1102-Water	Acidity	mg CaCO3/L	13	4	5	5
1103-Water	Sulphate	mg/L	2.0	3.6	20.1	10.0
1109-Water	Hardness	mg CaCO3/L	4.0	43.5	41.9	166
1301-Water	Al Dissolved	µg/L	369	115	86	<20
	Al Total	µg/L	414	152	131	50
	As Dissolved	µg/L	<5	<5	<5	<5
	As Total	µg/L	<5	<5	6	<5
	Cd Dissolved	µg/L	<1	<1	3	<1
	Cd Total	µg/L	<1	<1	4	<1
	Co Dissolved	µg/L	<1	<1	2	<1
	Co Total	µg/L	<1	<1	2	<1
	Cr Dissolved	µg/L	<1	<1	<1	<1
	Cr Total	µg/L	1	<1	<1	<1
	Cu Dissolved	µg/L	<1	<1	1	<1
	Cu Total	µg/L	2	<1	2	<1
	Fe Dissolved	µg/L	506	552	377	23
	Fe Total	µg/L	567	846	681	7810
	Mn Dissolved	µg/L	<5	318	704	2080
	Mn Total	µg/L	<5	369	572	2260
	Ni Dissolved	µg/L	<2	<2	<2	<2
	Ni Total	µg/L	<2	<2	7	<2
	Pb Dissolved	µg/L	6	19	21	<5
	Pb Total	µg/L	7	27	38	49
	Zn Dissolved	µg/L	7	40	1660	25
	Zn Total	µg/L	10	47	1970	150
1302-Water	Ca Dissolved	mg/L	0.21	12.8	11.3	55.8
	Mg Dissolved	mg/L	0.84	2.82	3.33	6.38