

Amendment Notice 1

Licence Number L6933/1996/14

Licensee Poseidon Nickel Limited

ACN 060 525 206

Registered business

address

Unit 8 Churchill Court

331-335 Hay Street

SUBIACO WA 6008

Date of amendment 22/06/2017

Prescribed Premises Category 05 - Processing and beneficiation of

metallic or non-metallic ore

Category 06 – Mine dewatering

Premises Black Swan Nickel Operations

Mining tenements M27/39 and M27/200

KALGOORLIE WA 6430

Amendment

The Chief Executive Officer (CEO) of the Department of Environment Regulation (DER) has amended the above licence in accordance with section 59 of the *Environmental Protection Act 1986* as set out in this Amendment Notice.

Date signed: 22 June 2017

Caron Goodbourn

MANAGER – PROCESS INDUSTRIES LICENSING AND APPROVALS

an officer delegated under section 20

of the Environmental Protection Act 1986 (WA)

Licence: L6933/1996/14 File No: 2012/006846

1

Amendment Notice

This notice is issued under section 59 of the *Environmental Protection Act* 1986 (EP Act) to amend the licence L6933/1996/14 issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

Amendment Description

The Black Swan Nickel (BSN) mine operated by Poseidon Nickel Limited (the Licence Holder) is situated on mining tenements M27/39 and M27/200, and located approximately 53 kilometres north-east of Kalgoorlie. BSN mine consists of the Silver Swan Massive Sulphide Nickel Project underground mine, the Black Swan Disseminated Sulphide open-pit mine, and the Black Swan Processing Facility.

The BSN operation produces nickel sulphide concentrate and has been in care and maintenance since 16 February 2009.

The existing licence contains condition 3.3.1, which requires the licensee to monitor groundwater monitoring bores at the Silver Swan Tailings Storage Facility (TSF), the Cygnet TSF, and the Black Swan Disseminated TSF. The current frequency of groundwater monitoring is quarterly when the premises are operational and biannually when in care and maintenance.

On 11 November 2016, the Licence Holder submitted an application to amend the licence to reduce the groundwater monitoring frequency under care and maintenance from six-monthly to annually.

Decision

The Delegated Officer has reviewed the groundwater monitoring data provided by the Licence Holder in the Annual Environment Reports. The data trends indicate no significant changes in either the standing water levels or water quality surrounding the three TSFs. Given the prolonged care and maintenance status of the premises, the Delegated Officer has reduced the groundwater monitoring frequency to annual.

Amendment History

Instrument	Issued	Amendment
L6933/1996/14	12/02/2015	Licence amendment to correct AER submission date, change premises production for dewatering, and update monitoring requirements.
L6933/1996/14	16/04/2015	Licence transfer from Black Swan Nickel Pty Ltd to Poseidon Nickel Limited.
L6933/1996/14	17/12/2015	Licence amendment to reduce monitoring frequency whilst in care and maintenance.
L6933/1996/14	29/04/2016	Amendment by notice to change licence duration.
L6933/1996/14	22/06/2017	Amendment Notice to reduce monitoring frequency from six-monthly to annually.

Amendment

1. Table 3.8.1 of the licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

Monitoring point reference Parameter Limit Units Averagin g period	Table 3.8.1: Monitoring of ambient groundwater quality							
Silver Swan and Cygnet TSF TD1, TD2, TD3, TD4, TD5, TD6, TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Standing Water Level (SWL) pH - pH - pH units - pH units - mg/L Spot sample Six monthly while in care and maintenance - mg/L Spot sample Six monthly while in care and maintenance - mg/L Spot sample Spot sample Spot sample Spot sample Annually while in Care & Maintenance Six monthly while in care and maintenance - mg/L Spot sample Six monthly while in care and maintenance - pH units Six monthly while in care and maintenance	<u> </u>	Parameter	Limit	Units	_	Frequency		
Cygnet TSF TD1, TD2, TD3, TD4, TD5, TD6, TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Cygnet TSF (SWL) pH Total Dissolved Solids - pH units Total Dissolved Solids - mg/L Spot while in eare and maintenance Spot sample Spot Quarterly when in operation Annually while in Care & Maintenance Six monthly while in care and maintenance Spot sample Spot Quarterly when in operation Annually while in Care & Maintenance Six monthly while in care and maintenance Six monthly while in Care & Maintenance Six monthly while in Care & Maintenance Six monthly while in Care & Maintenance Six monthly while in Care and maintenance					g period			
TD1, TD2, TD3, TD6, TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (WL) Chlorider atio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map)) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide - pH units - pH units Spot sample Spot sample Spot sample Spot sample Annually while in care and maintenance Mapl Six monthly while in Care & Maintenance Six monthly while in care and maintenance			4					
TD1, TD2, TD3, TD4, TD5, TD6, TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide - mg/L Spot sample while in care and maintenance - mg/L Spot sample Surmonthly while in care and maintenance - mg/L Spot Six monthly while in care and maintenance Spot Spot Spot Spot Spot Spot Spot Spot	Cygnet TSF					Six monthly		
TD4, TD5, TD6, TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (WAD CN); Cobalt; Total CN; Sulfate / Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF DH Units Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Dissolved Solids (TDS); Weak Acid dissociable cyanide Units and maintenance maintenance Spot Spot Six monthly while in care and maintenance Spot Quarterly when in Six monthly while in care and maintenance	TD1, TD2, TD3,	pΗ	-	,		_		
TD7, TD8, TD9, TD10, TD11, TD12 (Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide				units		and		
TD10, TD11, TD12 (Schedule 1 - Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 - Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide		T		,,	_	maintenance		
TD12 (Schedule 1 - Map) (TDS); Weak ACId dissociable cyanide (WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 - Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide (TDS); Weak ACId dissociable sample Spot sample Quarterly when in operation Annually while in care when in operation Annually while in care when in operation Annually while in Care & Maintenance Six monthly while in care and maintenance Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide			-	mg/L				
(WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) (WAD CN); Cobalt; Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese 4 mbgl Six monthly while in care and maintenance Spot Spot Quarterly when in	TD12 (Schedule 1				Spot	Quarterly		
Total CN; Sulfate; Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total CN; Sulfate; Chloride; Sulfate / Maintenance Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Spot Spot Spot Spot Sample When in	– <i>Мар</i>)				sample	when in		
Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Chloride; Sulfate / Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese 4 mbgl (SWL) pH - pH units Six monthly while in care and maintenance Cloride; Sulfate / Maintenance Six monthly while in care and maintenance Spot Guarterly when in						operation		
Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Chloride ratio, Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese 4 mbgl (SWL) pH - pH units Six monthly while in care and maintenance Cloride ratio, Selenium, Zinc, Nickel, Maintenance 4 mbgl Six monthly while in care and maintenance Cloride **Total Dissolved Solids of the companies of the compan								
Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Selenium, Zinc, Nickel, Copper, Aluminium, and Manganese 4 mbgl Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Spot Spot Sample When in								
Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Copper, Aluminium, and Manganese Standing Water Level 4 mbgl (SWL) pH - pH units Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Spot Spot Sample When in		,						
Black Swan Disseminated TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Manganese Standing Water Level 4 mbgl (SWL) pH - pH units Six monthly while in care and maintenance Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Spot Spot Sample When in						<u>Maintenance</u>		
Black Swan Disseminated (SWL) pH - pH MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Standing Water Level 4 mbgl Six monthly while in care and maintenance Spot Spot Spot Sample When in								
TSF MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide - pH units - pH units maintenance Spot Quarterly Spot sample when in	Black Swan	Standing Water Level	4	mbgl				
MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide Total Dissolved Solids - mg/L Spot Quarterly when in	Disseminated	(SWL)				Six monthly		
MB1, MB1a, MB2, MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids (TDS); Weak Acid dissociable cyanide units and maintenance mg/L Spot Quarterly sample when in	TSF	рН	-	рН				
MB3, MB6 & MB7 ((Schedule 1 – Map) Total Dissolved Solids - mg/L (TDS); Weak Acid dissociable cyanide maintenance Mg/L Spot Quarterly when in	MR1 MR1a MR2			units				
((Schedule 1 – Total Dissolved Solids - mg/L (TDS); Weak Acid dissociable cyanide Spot Quarterly sample when in								
Map) (TDS); Weak Acid Spot Quarterly dissociable cyanide sample when in			-	mg/L		mamamama		
dissociable cyanide sample when in	* * *				Spot	Quarterly		
TATA DOMESTICAL CONTROL WHOTH					sample	when in		
(WAD CN); Cobalt; operation				'	operation			
Total CN; Sulfate; Chloride; Sulfate /								
Chloride ratio								
Selenium Zinc Nickel		, I I I I						
Copper, Aluminium, and						<u>Maintenance</u>		
Manganese								

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L6933/1996/16 – Poseidon Nickel Limited: Black Swan Nickel Operations	Application	DER record # A1326270
2	DER, July 2015. <i>Guidance Statement:</i> Regulatory Principles. Department of Environment Regulation, Perth.		
3	DER, October 2015. Guidance Statement: Setting Conditions. Department of Environment Regulation, Perth.		
4	DER, November 2016. Guidance Statement: Risk Assessments. Department of Environment Regulation, Perth.	accessed at www.der.wa.gov.au	
5	DER, November 2016. Guidance Statement: Decision Making. Department of Environment Regulation, Perth.		

Appendix 1: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 24 February 2017 for review and comment. The Licence Holder responded on 24 February 2017 and no comments were submitted on the draft Amendment Notice.