

## A. Statement of Compliance - Licence Details

**ALL Licence holders must check that the Licence details in Section A are correct.**

If there are changes to any of these details, **you must advise Environment Protection Authority (EPA) and apply as soon as possible for a variation to your Licence or for a Licence transfer.**

Licence variation and transfer application forms are available on the EPA website at: <http://www.epa.nsw.gov.au/licensing-and-regulation/licensing> or from regional offices of the EPA, or by contacting by telephone 02 9995 5700.

If you are applying to vary or transfer your Licence, you must still complete and submit this Annual Return.

### A1. Licence holder

**Licence number** : 20020  
**Licence holder** : MANUKA RESOURCES LTD  
**Trading name (if applicable)** :  
**ABN** : 80 611 963 225  
**ACN** : 611 963 225  
**Reporting period** : From: 14-11-2018 To: 13-11-2019

### A2. Premises to which Licence Applies (if applicable)

**Common name (if any)** : "Manuka"  
**Premises** : Shire Road 13 (Cobar- Bedooba Road) COBAR 2835 NSW

### A3. Activities to which Licence Applies

Crushing, grinding or separating  
Metallurgical activities  
Mineral processing  
Mining for minerals

### A4. Other Activities (if applicable)

General Chemical Storage, Extractive Industries, Sewerage Treatment

### A5. Fee-Based Activity Classifications

**Note** that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Crushing, grinding or separating	> 500,000.00 - 2,000,000.00	T annual processing capacity
Metal processing	> 0.00 - 100,000.00	T annual processing capacity
Mineral processing	> 500,000.00 - 2,000,000.00	T annual processing capacity
Mining for minerals	> 500,000.00 - 2,000,000.00	T annual production capacity

## A6. Assessable Pollutants (if applicable)

**Note** that the identification of assessable pollutants is used to calculate the **load-based fee**. The following assessable pollutants are identified for the fee-based activity classifications in the licence:

## B. Monitoring and Complaints Summary

### B1. Number of Pollution Complaints

Pollution Complaint Category	Complaints
Air	0
Water	0
Noise	0
Waste	0
Other	0
<b>Total complaints recorded by the licensee during the reporting period</b>	<b>0</b>

### B2. Concentration Monitoring Summary

For each concentration monitoring point identified in your licence, details are displayed below. If concentration monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate concentration monitoring of assessable pollutants as required by load-based licensing (if applicable).

#### Discharge & Monitoring Point 4

##### WSW-1.

Sediment Basin 1 , Monitoring and discharge point SB1 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Total suspended solids	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0

### Discharge & Monitoring Point 5

#### WSW-2.

Sediment Basin 5, Monitoring and discharge point SB5 Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Total suspended solids	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0

### Discharge & Monitoring Point 6

TSF-1. Discharge to Tailings Storage Facility, End of line discharge to Tailings Storage Facility (TSF). Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Cyanide (total)	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0

### Discharge & Monitoring Point 7

PWD1 - Discharge to Process Water Dam, Discharge of decant water to Process Water Dam. Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Cyanide (total)	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	Daily during discharge events	0 - no discharge events	0	0	0

### Monitoring Point 9

Groundwater Quality Monitoring, Deep groundwater monitoring bore GW3 identified on map titled "Figure W3 Water Quality Monitoring Locations" in document titled Operations Environmental Management Plan dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	1 - others were insufficient samples	793	793	793
Antimony	milligrams per litre	4	1 - others were insufficient samples	<0.001	<0.001	<0.001
Arsenic (dissolved)	milligrams per litre	4	1 - others were insufficient samples	<0.001	<0.001	<0.001
Cadmium	milligrams per litre	4	1 - others were insufficient samples	<0.0001	<0.0001	<0.0001
Calcium	milligrams per litre	4	1 - others were insufficient samples	147	147	147
Chloride	milligrams per litre	4	1 - others were insufficient samples	3160	3160	3160
Conductivity	microsiemens per centimetre	4	3	10.85	11.61	12.8
Copper	milligrams per litre	4	1 - others were insufficient samples	<0.001	<0.001	<0.001

Lead	milligrams per litre	4	1 - others were insufficient samples	0.013	0.013	0.013
Magnesium	milligrams per litre	4	1 - others were insufficient samples	314	314	314
Mercury (dissolved)	micrograms per litre	4	0 - new parameter, not previously tested	0	0	0
Mercury (total)	micrograms per litre	4	0 - new parameter, not previously tested	0	0	0
pH	pH	4	3	6.5	6.88	7.44
Potassium	milligrams per litre	4	1 - others were insufficient samples	49	49	49
Selenium	milligrams per litre	4	1 - others were insufficient samples	<0.01	<0.01	<0.01
Silver	milligrams per litre	4	1 - others were insufficient samples	<0.001	<0.001	<0.001
Sodium	milligrams per litre	4	1 - others were insufficient samples	2080	2080	2080
Standing Water Level	metres	4	7	53.65	54.02	54.8
Sulfate	milligrams per litre	4	1 - others were insufficient samples	991	991	991
Total Hardness	milligrams per litre	4	1 - others were insufficient samples	1660	1660	1660
Zinc	milligrams per litre	4	1 - others were insufficient samples	0.036	0.036	0.036

## Monitoring Point 10

Groundwater Quality Monitoring, Deep groundwater monitoring bore WG1B identified on map titled "Figure W3 Water Quality Monitoring Locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Antimony	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Arsenic (dissolved)	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Cadmium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Calcium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Chloride	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Conductivity	microsiemens per centimetre	4	0 - Unable to sample - Insufficient sample	0	0	0
Copper	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Lead	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Magnesium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Mercury (dissolved)	micrograms per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Mercury (total)	micrograms per litre	4	0 - Unable to sample - Insufficient sample	0	0	0

pH	pH	4	0 - Unable to sample - Insufficient sample	0	0	0
Potassium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Selenium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Silver	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Sodium	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Standing Water Level	metres	4	8	79.73	79.92	80.3
Sulfate	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Total Hardness	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0
Zinc	milligrams per litre	4	0 - Unable to sample - Insufficient sample	0	0	0

## Monitoring Point 11

Groundwater Quality Monitoring, Deep groundwater monitoring bore WG2 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	1 - others were insufficient samples	793	793	793
Antimony	milligrams per litre	4	1 - others were insufficient samples	0.002	0.002	0.002

Arsenic (dissolved)	milligrams per litre	4	1 - others were insufficient samples	<0.001	<0.001	<0.001
Cadmium	milligrams per litre	4	1 - others were insufficient samples	0.0006	0.0006	0.0006
Calcium	milligrams per litre	4	1 - others were insufficient samples	793	793	793
Chloride	milligrams per litre	4	1 - others were insufficient samples	4250	4250	4250
Conductivity	microsiemens per centimetre	4	4	13.4	14.95	17.6
Copper	milligrams per litre	4	1 - others were insufficient samples	0.013	0.013	0.013
Lead	milligrams per litre	4	1 - others were insufficient samples	0.22	0.22	0.22
Magnesium	milligrams per litre	4	1 - others were insufficient samples	563	563	563
Mercury (dissolved)	micrograms per litre	4	0 - new parameter, not previously tested	0	0	0
Mercury (total)	micrograms per litre	4	0 - new parameter, not previously tested	0	0	0
pH	pH	4	4	6.5	6.79	7.5
Potassium	milligrams per litre	4	1 - others were insufficient samples	65	65	65
Selenium	milligrams per litre	4	1 - others were insufficient samples	<0.01	<0.01	<0.01
Silver	milligrams per litre	4	1 - others were insufficient samples	0.002	0.002	0.002



Sodium	milligrams per litre	4	1 - others were insufficient samples	2340	2340	2340
Standing Water Level	metres	4	7	50.69	50.90	51.1
Sulfate	milligrams per litre	4	1 - others were insufficient samples	3180	3180	3180
Total Hardness	milligrams per litre	4	1 - others were insufficient samples	4300	4300	4300
Zinc	milligrams per litre	4	1 - others were insufficient samples	0.179	0.179	0.179

## Monitoring Point 12

Groundwater Quality Monitoring, Shallow groundwater monitoring bore GW4 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Antimony	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Cadmium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Calcium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Chloride	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Conductivity	microsiemens per centimetre	4	0 - Unable to sample - Dry	0	0	0
Copper	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Lead	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Magnesium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

Mercury (dissolved)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
Mercury (total)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
pH	pH	4	0 - Unable to sample - Dry	0	0	0
Potassium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Selenium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Silver	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Sodium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Standing Water Level	metres	4	0 - Unable to sample - Dry	0	0	0
Sulfate	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Total Hardness	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Zinc	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

### Monitoring Point 13

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW5 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Antimony	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Cadmium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Calcium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Chloride	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Conductivity	microsiemens per centimetre	4	0 - Unable to sample - Dry	0	0	0
Copper	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

Cyanide (weak acid dissociable)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Lead	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Magnesium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Mercury (dissolved)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
Mercury (total)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
pH	pH	4	0 - Unable to sample - Dry	0	0	0
Potassium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Selenium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Silver	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Sodium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Standing Water Level	metres	4	0 - Unable to sample - Dry	0	0	0
Sulfate	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Total Hardness	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Zinc	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

### Monitoring Point 14

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW6 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Antimony	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Cadmium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Calcium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

Chloride	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Conductivity	microsiemens per centimetre	4	0 - Unable to sample - Dry	0	0	0
Copper	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Lead	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Magnesium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Mercury (dissolved)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
Mercury (total)	micrograms per litre	4	0 - Unable to sample - Dry	0	0	0
pH	pH	4	0 - Unable to sample - Dry	0	0	0
Potassium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Selenium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Silver	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Sodium	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Standing Water Level	metres	4	0 - Unable to sample - Dry	0	0	0
Sulfate	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Total Hardness	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0
Zinc	milligrams per litre	4	0 - Unable to sample - Dry	0	0	0

## Monitoring Point 15

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW7 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0

Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

## Monitoring Point 16

**Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW8 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012**

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

## Monitoring Point 17

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WG9 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	00
Mercury (total)	micrograms per litre	0	Dry	0	00	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	00

Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### Monitoring Point 18

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW10 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0



Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### Monitoring Point 19

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW11 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0

Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### Monitoring Point 20

Groundwater Quality Monitoring , Shallow groundwater monitoring bore WG12 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0

Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### Monitoring Point 21

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW13 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0

Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

## Monitoring Point 22

**Groundwater Quality Monitoring, Shallow groundwater monitoring bore WG14 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012**

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0

Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### Monitoring Point 23

Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW15 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0
Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0

Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

## Monitoring Point 24

**Groundwater Quality Monitoring, Shallow groundwater monitoring bore WGW16 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012**

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Alkalinity (as calcium carbonate)	milligrams per litre	0	Dry	0	0	0
Antimony	milligrams per litre	0	Dry	0	0	0
Arsenic (dissolved)	milligrams per litre	0	Dry	0	0	0
Cadmium	milligrams per litre	0	Dry	0	0	0
Calcium	milligrams per litre	0	Dry	0	0	0

Chloride	milligrams per litre	0	Dry	0	0	0
Conductivity	microsiemens per centimetre	0	Dry	0	0	0
Copper	milligrams per litre	0	Dry	0	0	0
Cyanide (weak acid dissociable)	milligrams per litre	0	Dry	0	0	0
Lead	milligrams per litre	0	Dry	0	0	0
Magnesium	milligrams per litre	0	Dry	0	0	0
Mercury (dissolved)	micrograms per litre	0	Dry	0	0	0
Mercury (total)	micrograms per litre	0	Dry	0	0	0
pH	pH	0	Dry	0	0	0
Potassium	milligrams per litre	0	Dry	0	0	0
Selenium	milligrams per litre	0	Dry	0	0	0
Silver	milligrams per litre	0	Dry	0	0	0
Sodium	milligrams per litre	0	Dry	0	0	0
Standing Water Level	metres	0	Dry	0	0	0
Sulfate	milligrams per litre	0	Dry	0	0	0
Total Hardness	milligrams per litre	0	Dry	0	0	0
Zinc	milligrams per litre	0	Dry	0	0	0

### B3. Volume or Mass Monitoring Summary

For each volume or mass monitoring point identified in your licence, details are displayed below. If volume or mass monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate volume or mass monitoring of assessable pollutants are required by load-based licensing (if applicable).

## C. Statement of Compliance - Licence Conditions

### C1. Compliance with Licence Conditions

Were all conditions of the licence complied with (including monitoring and reporting requirements)?	Yes
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## D. Statement of Compliance - Load Based Fee Calculation

If you are not required to monitor assessable pollutants by your licence, **no data** will appear below.

If assessable pollutants have been identified on your licence, the following worksheets for each assessable pollutant will determine your load based fee for the licence fee period to which this Annual Return relates.

**Loads of assessable pollutants must be calculated using any of the methods provided in EPA's Load Calculation Protocol for the relevant activity.** A Load Calculation Protocol would have been already sent to you with your licence. If you require additional copies, you can download the Protocol from the EPA's website or you can contact us on telephone 02 9995 5700.

You are required to keep all records used to calculate licence fees for four years after the licence fee was paid or became payable, whichever is the later date.

## E. Statement of Compliance - Requirement to Prepare PIRMP

Have you prepared a Pollution Incident Response Management Plan (PIRMP) as required under section 153A of the Protection of the Environment Operations (POEO) Act 1997?	Yes
Is the PIRMP available at the premises?	Yes
Is the PIRMP available in a prominent position on a publicly accessible website?	No
Has the PIRMP been tested?	No
Has the PIRMP been updated?	No
Number of times the PIRMP was activated in this reporting period?	0
The PIRMP was activated on	15/06/2017

## F. Statement of Compliance - Requirement to Publish Pollution Monitoring Data

Are there any conditions attached to your licence that require pollution monitoring to be undertaken as required under section 66(6) of the Protection of the Environment Operations (POEO) Act 1997?	Yes
Do you operate a website?	No

## G. Statement of Compliance - Environment Management System and Practices



Do you have an ISO 14001 certified Environmental Management System (EMS) OR any other system that EPA considers is equivalent to the accountability, procedures, documentation and record keeping requirements of an ISO 14001 certified EMS?	No
Have you conducted an assessment of your activities and operations to identify the aspects that have a potential to cause environmental impacts and implemented operational controls to address these aspects?	Yes
Have you established and implemented an operational maintenance program, including preventative maintenance?	Yes
Do you keep records of regular inspections and maintenance of plant and equipment?	No
Do you conduct regular (at least yearly) environmental audits at the premises that are conducted by a competent and independent person?	Yes
Have you undertaken an independent environmental audit covering documented environmental practices, procedures and systems in place during the annual return period?	Yes
Have you established and implemented an environmental improvement or management plan?	Yes
Do you train staff in environmental issues that may arise from your activities and operations at the premises and keep records of this?	Yes

## H. Signature and Certification

**This Annual Return may only be signed by person(s) with legal authority to sign it as set out in following categories: an Individual, a Company, a Public authority or a Local council.**

**It is an offence under section 66 of the Protection of the Environment Operations Act 1997 to supply any information in this form that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect. There is a maximum penalty of \$250,000 for a corporation and \$120,000 for an individual.**

I/We

- declare that the information in the Monitoring and Complaints Summary in Section B of this Annual Return application is correct and not false or misleading in a material respect, and
- certify that the information in the Statement and Compliance in sections A, C, D, E, F, G and H and any other pages attached to Section C is correct and not false or misleading in a material respect.

### Signed by: Director

<b>Name</b>	Dennis Karp
<b>Position</b>	Director
<b>Email Address</b>	dkarp@manukaresources.com.au
<b>Phone Number</b>	02 8220 0488

### Signed by: Secretary

<b>Name</b>	Toni Gilholme
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# Annual Return

MANUKA RESOURCES LTD

Licence 20020

<b>Position</b>	Secretary
<b>Email Address</b>	tgilholme@rescapinvestments.com.au
<b>Phone Number</b>	02 8220 0488

<b>Signature</b>		<b>Signature</b>	
<b>Name</b>		<b>Name</b>	
<b>Position</b>		<b>Position</b>	
<b>Date</b>	/ /	<b>Date</b>	/ /
<b>Declaration</b> <p>I declare that the information in the Monitoring and Complaints Summary in section B of this Annual Return is correct and not false or misleading in a material respect, and</p> <p>I certify that the information in the Statement of Compliance in section A,C,D,E,F and G and any pages attached to Section C is correct and not false or misleading in a material respect.</p>		<b>Declaration</b> <p>I declare that the information in the Monitoring and Complaints Summary in section B of this Annual Return is correct and not false or misleading in a material respect, and</p> <p>I certify that the information in the Statement of Compliance in section A,C,D,E,F and G and any pages attached to Section C is correct and not false or misleading in a material respect.</p>	