

31 March 2022

TABLE 1 - 2012 JORC: Didipio Gold Mine

OceanaGold Corporation (**TSX**: **OGC**) (**ASX**: **OGC**) (the "Company") refers to the announcement released by the Company dated 31 March 2022 titled "OCEANAGOLD REPORTS MINERAL RESOURCES AND RESERVES FOR THE YEAR-ENDED 2021" and hereby encloses TABLE 1 - 2012 JORC: Didipio Gold Mine relating to the announcement.

#### SUMMARY OF TABLE 1 - 2012 JORC: Didipio Gold Copper Operation

A Material Information Summary pursuant to ASX Listing Rules 5.8 and 5.9 is provided below for the Didipio operation which includes both open pit and underground mining, ore processing and a single economic analysis based on combined open pit and underground Ore Reserves as at 31 December 2021.

The Didipio operation is controlled by OceanaGold Corporation through its wholly owned subsidiary OceanaGold (Philippines) Inc. OceanaGold is listed on the Toronto and Australian stock exchanges under the code "OGC" and is the Issuer of this Technical Report.

#### 1.0 Didipio Operation

The Didipio operation is an operating gold-copper mine in the northern Luzon region of the Republic of the Philippines with in-situ underground and surface stockpile reserves estimated to be 42.2 Mt at 0.91 g/t Au and 0.35% Cu for 1.23 million ounces of gold and 0.15 million tonnes of copper, including 2.57 million ounces of silver as at 31 December 2021. The operating mine life remaining is 12 years with underground production and processing complete in 2033. The average ore grade for underground material is 1.54g/t Au, 0.42% Cu and 1.79g/t Ag. Surface stockpile ore has an average grade of 0.34g/t Au, 0.29% Cu and 1.99g/t Ag.

Annual mill throughput ramped up from initial rates of 2.5 million tonnes per annum (Mtpa), reaching 3.5 Mtpa in 2015. Annual production is forecast to be 100-130 koz of gold per annum from 2022 until 2027 when grades start to decline. Similarly, annual copper production is forecast to be 12-13 kt from 2022 until 2029, dropping below 10 kt from 2030 onwards.

In July 2019 operations were suspended following the expiry of the Didipio Financial or Technical Assistance Agreement ("FTAA"). The FTAA was renewed in July 2021. Processing of surface stockpiles resumed in November 2021 and underground production restarted in November 2021. Current Ore Reserves support underground mining and processing through to 2033. As at December 31, 2021, the operation employed approximately 1,250 personnel consisting of OceanaGold employees and its contractors. Over half of those come from the provinces of Nueva Vizcaya and Quirino.

#### 1.1 Geology and Mineralisation

The project area is situated within the southern part of the meridional Cagayan Valley basin in north-eastern Luzon and is bounded on the east by the Sierra Madre Range, on the west by the Luzon Central Cordillera range, and to the south by the Caraballo Mountains. The regional geology comprises late Miocene volcanic, volcaniclastic, intrusive and sedimentary rocks overlying a basement complex of pre-Tertiary age tonalite and schist, which have been interpreted to represent an island arc depositional and tectonic setting.

The Didipio gold-copper deposit is hosted within the multiphase Didipio Stock, which is in turn part of a larger alkalic intrusive body, the Didipio Igneous Complex. The deposit has been identified as an alkalic gold-copper porphyry system, roughly elliptical in shape at surface (480 m long by 180 m wide) and with a vertical pipe-like geometry that extends to at least 800 m below the surface.

Porphyry-style mineralisation is closely associated with a zone of K-feldspar alteration within a small composite porphyritic monzonite stock intruded into the main body of diorite (Dark Diorite). Chalcopyrite, gold and silver (electrum) are the main economic minerals in the deposit. Chalcopyrite occurs as fine-grained disseminations, aggregates, fracture fillings and veins. Fine grained gold occurs as micro-inclusions in sulphides, as well as free gold, electrum, and telluride. Visible gold is rare.

Oxidisation of sulphides persists from the surface to a depth of between 15 m and 60 m, averaging 30 m. All economic oxide and transitional mineralisation has now been mined.

#### 1.2 Drilling, Sampling and Analyses

Underground drilling is by diamond coring, generally fanned on north-south orientated sections (mine grid). This has resulted in a range of intersection angles, from perpendicular to dip, to 45 degrees to dip. Given the typically diffuse mineralisation style, the drilling provides an acceptable basis for resource estimation. As of

December 31, 2021 the drill hole database for the Didipio FTAA area contained records of 1013 holes for a total of 164,451.7 m.

Sample preparation of Didipio drill core has been conducted in a number of phases. The OceanaGold phase represents 88% of the samples used for estimation. Half or whole core is crushed, sub-sampled and analysed on-site at a certified, independently operated SGS laboratory facility. Gold analysis is by Fire Assay with AAS finish. Copper analysis is either by AAS on a 3-acid digest, XRF, or ICP. The quantity and quality of the lithological, geotechnical, and geochemical data collected in the exploration, surface resource delineation, underground resource delineation, and grade control drill programs are considered sufficient to support the Mineral Resource and Ore Reserve estimation.

#### 1.3 Estimation Method

Gold, copper and silver are independently estimated into 10 mE x 5 mN x 15 mRL blocks using ordinary kriging of 3 m composites. Where appropriate, geological constraints are applied to the estimation of gold and copper. Underground Resources are classified as:

- Measured are based on drilling typically closer than 25 m x 25 m
- Indicated closer than 45 m x 45 m, and
- Inferred greater than 45 m x 45 m.

#### 1.4 Mining and Metallurgy

Mining at Didipio is via underground methods. Studies have been conducted to optimise the transition from open pit mining to underground mining. Major open pit mining was completed in 2017 with a small amount of material mined from the pit floor since then as part of Crown Stabilisation Project (CSP). Ongoing work at the base of the open pit involves placement of an engineered crown pillar comprised of cemented rock fill (CRF) in the base of the open pit, which will be complete in 2024. Stopes in the crown pillar area directly beneath the base of the pit can then be extracted, resulting in increased mining recoveries and reduced geotechnical risks through this region.

Since portal establishment in 2015, 20 km of lateral development has been completed. Based on current Ore Reserves, an additional 28 km of lateral development is required for capital infrastructure and to access all stoping blocks, with a peak advance rate of 400 m per month of jumbo advance. Vertical waste development related to ventilation infrastructure and emergency egress is mined via a combination of longhole drill and blast, and raisebore. Waste generated through lateral and vertical development is hauled directly to the bottom of the pit to be used for CRF, or to the surface waste dump later in the mine life. With paste fill utilised for backfill, no internal haulage and stockpiling of waste underground is required. Approximately 1.02 Mt of waste will be generated over the remainder of the LoM.

Key mine infrastructure includes two 5.5 m diameter exhaust ventilation raises with accompanying primary fans, a 5.5 m diameter intake fresh air raise, and an underground ladderway system located within fresh air which provides a second means of egress to the surface via an additional portal located at 2540 mRL in the southern wall of the pit. The paste backfill plant and associated infrastructure is located on the surface with underground reticulation to transfer paste to underground stopes. An underground dewatering system is currently in place, with the main pump station and water storage stope located at the 2250 mRL Level. An additional pump station, wastewater storage stopes, and associated infrastructure is planned for the 2160 mRL Level to provide additional dewatering capacity for the lower levels of the mine. A section view of the underground mine layout and major infrastructure can be seen in

Figure 1 below.

Paste Fill Lines

Portal 2
Capital Pump Station 2

Decline Advance as of Dec 2021
2180mRL

Return Air Raise

Portal 2
Capital Pump Station 1

Capital Pump Station 1

Figure 1: Didipio Underground and Major Infrastructure

A transverse primary/secondary stoping sequence with paste backfill is used at Didipio. The sequence progresses from the top down, with personnel and equipment working on top of insitu rock. The exception to this is some stopes on the two upper levels (2400 mRL and 2430 mRL) that recover ore beneath the cemented rockfill crown pillar in the base of the pit. The mining sequence at Didipio involves extraction of primary stopes followed by mining the secondary stopes. Previous iterations of the production schedule at Didipio allowed for unconsolidated rockfill to be placed in secondary stopes. However, given the change to a top-down mining sequence, all stopes will require paste fill. The primary/secondary sequence allows for stoping to be undertaken concurrently in multiple working areas, allowing for increased production rates compared to other methods such as longitudinal retreat or a continuous front approach. Production rates from the underground are ramping up from 1.4 Mtpa in 2022 to 1.7 Mtpa steady state throughput in 2024.

Open pit mining was completed in May 2017 however low-grade stockpiles that were mined prior to the cessation of open pit mining provides supplementary mill feed to underground ore. For Ore Reserves purposes, these stockpiles are defined as Open Pit Reserves at Didipio.

Ore processing at Didipio is via a conventional SABC grinding circuit followed by froth flotation for recovery of copper and gold minerals into a flotation concentrate that is filtered and trucked to the port facilities for sale. A number of Falcon gravity concentrators are used on key streams to recover free gold from the flotation concentrate for smelting into Dore on site for direct sale with metal recoveries overall averaging 93.2% for copper and 89.8% for gold over the project to date. An additional coarse gravity gold recovery circuit is being installed and planned to be operational by Q3 2022 to recover a higher proportion of the free gold to the higher payable dore product.

The process plant throughput has consistently achieved the rate of 3.5Mtpa since 2015 and has demonstrated the ability to mill over 4Mtpa if permit changes are successful in the future.

#### 1.5 Mineral Resources

Resources are reported to a gold equivalence cut-off, where AuEq = Au + 1.39 x Cu%.

The underground, stockpile, and combined Mineral Resource estimates in the tables below are reported and classified in accordance with the JORC 2012 Code and the CIM Definition Standards for Mineral Resources and Mineral Reserves.

There is no certainty that Mineral Resources, not included as Mineral Reserves, will convert to Mineral Reserves.

The underground resource estimate is reported below the 2460 mRL (base of the completed open-pit) and the base of Panel two at 1980mRL.

The equation for contained gold equivalent ("AuEq") is g/t AuEq = g/t Au + 1.39 x Cu%. Silver is reported as an incidental by-product and does not contribute to gold equivalence.

The underground resource is reported at 0.67 g/t AuEq within a volume guided by an optimised stope design which was based on metal prices of US\$1,700 per ounce for gold and US\$3.50 per pound for copper (the reserve assumptions are US\$1,500 per ounce for gold and US\$3.00 per pound for copper).

The resources have been depleted for mining as at 31 December 2021.

Surface stockpiles are reported, resulting from open pit mining during 2012 to 2017 mined to a 0.4 g/t AuEq cut-off. These include 5.3 Mt of low grade at a 0.27 g/t AuEq cut-off.

**Table 1: Stockpile Mineral Resource Estimate** 

Class	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Cu (%)	Au (Moz)	Ag (Moz)	Cu (Mt)
Measured	22.9	0.33	1.99	0.29	0.25	1.46	0.067
Indicated	-	-	-	-	-	-	-
Measured & Indicated	22.9	0.33	1.99	0.29	0.25	1.46	0.067
Inferred	-	-	-	-	-	-	-

**Table 2: Underground Mineral Resource Estimate** 

Class	Tonnes	Au	Ag	Cu	Au	Ag	Cu
Sidoo	(Mt)	(g/t)	(g/t)	(%)	(Moz)	(Moz)	(Mt)
Measured	12.6	1.94	2.09	0.49	0.79	0.84	0.062
Indicated	12.3	0.95	1.46	0.35	0.38	0.58	0.043
Measured & Indicated	24.9	1.45	1.78	0.42	1.16	1.42	0.10
Inferred	15	0.87	1.3	0.29	0.43	0.64	0.04

**Table 3: Combined Mineral Resource Estimate** 

Class	Tonnes	Au	Ag	Cu	Au	Ag	Cu
	(Mt)	(g/t)	(g/t)	(%)	(Moz)	(Moz)	(Mt)
Measured	35.5	0.90	2.03	0.36	1.04	2.3	0.13
Indicated	12.3	0.95	1.46	0.35	0.38	0.58	0.043
Measured & Indicated	47.8	0.92	1.88	0.36	1.41	2.88	0.17
Inferred	15	0.87	1.3	0.29	0.43	0.64	0.04

#### 1.5 Ore Reserves

The combined Ore Reserves for Didipio Underground and Open Pit (Stockpiles) are summarised in Table 4 and are reported and classified in accordance with the JORC 2012 Code and the CIM Definition Standards for Mineral Resources and Mineral Reserves

Table 4: Combined Open Pit and Underground Ore Reserve Estimate as at 31 December 2021

Reserve Area	Reserve Class	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Cu (%)	Contained Au (Moz)	Contained Ag (Moz)	Contained Cu (Mt)
Underground	Proven	12.7	1.83	1.98	0.46	0.75	0.81	0.06
	Probable	7.33	1.03	1.44	0.34	0.24	0.34	0.03
Open Pit (Stockpiles)	Proven	22.2	0.34	1.99	0.29	0.24	1.42	0.07
	Probable	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Proven		35.6	0.87	1.99	0.35	0.99	2.23	0.12
Total Probable		7.33	1.03	1.44	0.34	0.24	0.34	0.03
Didipio Total (Dec 2021)		42.2	0.91	1.89	0.35	1.23	2.57	0.15

- Ore Reserves are reported to a gold price of US\$1500/oz and US\$3.00/lb for copper
- Cut-off grade for open pit stockpile material is 0.40 g/t AuEq
- Cut-off grade for underground material is 1.16 g/t AuEq
- Gold Equivalence grade is calculated as: Grade (AuEq) = Grade Au (g/t) + (1.37 x Grade Cu (%))
- Mining dilution (waste) is applied and ranges from 0% to 5% depending on activity type
- Mining recovery (ounces) is applied and ranges from 95% to 100% depending on activity type
- All figures are rounded to reflect the relative accuracy of the estimates. Totals may not sum due to rounding.
- Ore Reserves have been stated on the basis of a mine design, mine plan, and cash flow model

#### **1.6 Competent Persons**

Information relating to Processing and Metallurgy was prepared under the supervision of Mr David Carr, information relating to the Ore Reserves was prepared by or under the supervision of Mr Phillip Jones and information relating to Mineral Resources in this document was prepared by or under the supervision of Mr Jonathan Moore. Messrs Carr, Jones and Moore are members and Chartered Professionals of the Australasian Institute of Mining and Metallurgy and are full-time employees of the Company's subsidiary, OceanaGold Management Pty Limited

Mr Carr, Jones and Moore have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

# JORC Code, 2012 Edition – Table 1 Report for the Didipio Gold Project

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	sampling intervals were defined after geological logging was completed. Whole NQ size core and half cut HQ size core was generally sampled in intervals of one metre, within a range from 0.3 metres to 1.3 metres, depending on lithological boundaries.  • Underground 1 m grade control channel samples taken from the walls of ore drives were also included in the resource estimate totalling 7,735 additional samples. These channel samples represent 11% of a total sample population of 70,328 diamond core and channel samples.  • Magnetic susceptibility measurements have been made on most of the core using a hand-held instrument at approximately 1 metre intervals.
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or</li> </ul>	<ul> <li>Surface diamond drilling on the project has been carried out by several different contractors using either HQ or NQ diameters. From January 1994</li> </ul>

Criteria	JORC Code explanation	Commentary
	standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	until 1998 all holes were drilled by either Core Drill Asia or the Diamond Drilling Company of the Philippines. Both contractors used Longyear drilling rigs and wireline drilling methods.  The 2008 infill drilling program was done by DrillCorp Philippines using CS1000 drilling rigs.  DrillCorp subsequently drilled 14 exploration diamond drill holes within OceanaGold tenement area from May 2013 – June 2014, these are not included in the resource estimate.  2013 in pit drilling was done by Quest Exploration Drilling using a track mounted Edson multipurpose rig for preliminary target testing of the underground ore body.  A program of 24 deeper RC holes were drilled in 2015 to provide infill data for the top eastern level of Panel 1.  The Panel 1 underground resource definition drilling was carried out by Quest Exploration Drilling using an Atlas Copco Diamec U6 rig. Indodrill Philippines has also drilled three resource extension holes and several resource definition holes targeting Panel 2 using a Sandvik DE150/DE140 rig.  The bulk of Panel 2 underground resource definition drilling was carried out by Quest Exploration Drilling using either an Atlas Copco Diamec U6 or U8 rig from underground platforms in Panel 1.  Only select surface holes were included for the underground resource estimates (refer to "Drill hole information" section for list of surface holes included in the estimate). Underground drill holes provide far more effective cross-strike coverage, and are better located, than the steeply dipping surface holes. Where gaps in the underground coverage remain, surface holes have been
		included.

Criteria	JORC Code explanation	Commentary
		<ul> <li>All underground resource definition and resource extension holes were included in the estimate.</li> <li>Earlier surface holes were drilled using a 5-1/4" roller bit to refusal, then HQ coring, reducing to NQ as required (&gt;~600 m). From DDDH 29 and onwards, all surface holes were diamond cored from surface.</li> <li>2013 drill holes (DDDH 222 – 226) were collared using PQ then reduced to HQ at 20 m depth.</li> <li>All holes drilled before 2013 were surveyed with Eastman survey camera at 50 m – 100 m intervals. 2013 drill holes were surveyed using Reflex EZ-Trac at 20 m – 30 m intervals, all 2013 drill cores were oriented using Reflex Act II orientation tool.</li> <li>Since August 2016, all holes were drilled from underground platforms using diamond coring with hole size primarily NQ2 with some holes drilled with HQ.</li> <li>Underground diamond drillholes were surveyed by either Camteq Proshot (DDDH 240 and 242) or Reflex EZ-Trac at 30 m intervals. Some holes were gyroscopically surveyed (DDDH 240, 241A and 242, RDUG 004, 013, 017, 022, 025, 029, 031, 124, 129)</li> <li>Since August 2017 all holes were aligned using Reflex TN14 gyrocompass.</li> </ul>
		<ul> <li>Since October 2017 core orientation using a reflex orientation tool has been discontinued.</li> </ul>
		<ul> <li>325 RAB blast holes from the 2019 Crown Strengthening Project have been composited and spear sampled adding additional data to this estimate.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery</li> </ul>	<ul> <li>Core recoveries were measured after each drill run comparing length of core recovered vs drill depth.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	core were logged to a standard appropriate for the open pit resource estimation. All drill holes were logged geotechnically and geologically for the entire length of each hole using OceanaGold logging procedure. Holes drilled prior to 2008 were re-logged using OceanaGold procedure.  • 329 underground drill holes were included in this
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	different sample preparation protocols have been followed, although with many common elements including: <ul> <li>Where part core is sampled, all core has been saw cut, either on site or at Climax facility in Cordon.</li> <li>Half-core was first oven dried, then crushed and split prior to pulverizing.</li> <li>All mass reduction of crushed material is by riffle splitting.</li> </ul> <li>Cyprus and Arimco samples (1989-1991) were</li>

Criteria	JORC Code explanation	Commentary
		<ul> <li>pulveriser-&gt;hammer mill), a 2 kg split sample was pulverized to 75 μm, and 200 g of pulp then airfreighted to Analabs in Perth, WA, for assay.</li> <li>OceanaGold samples from 2008 to 2013 were prepared and assayed at Mcphar / Intertek in Manila (crushed to 2 mm, 1-1.5 kg split pulverized to 95% passing 75 μm, 250 g pulp sample retained)</li> <li>Since 2013, all OceanaGold samples have been processed on site at a laboratory facility operated by SGS (crushed to 2 mm, split of 500-1000 g pulverized to 85% passing 75 μm, 250 g scoop for analysis, remaining pulp retained)</li> <li>In cases where OceanaGold has collected metallurgical samples, a further quarter of the core has been taken.</li> <li>Screen fire analysis of selected high gold grade intervals was conducted, and no coarse gold issues were identified.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>internationally accredited laboratory groups, with internal quality control processes. Laboratory selection is considered the primary control on assay quality.</li> <li>Three laboratories have been used to analyse core samples from the Didipio Au-Cu Project, ANALABs in Perth and Manila (Pre-OceanaGold), McPhar-Intertek in Manila (2008 Infill Drilling) and SGS on site laboratory (2013 onwards). All underground drill core has been assayed at SGS.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Copper analysis of underground drill holes at SGS has been carried out using 3-acid digest with AAS finish or XRF.</li> <li>Silver analysis is by 3 acid digest with AAS finish.</li> <li>These methods and detection limits are considered appropriate for the type of mineralisation and expected grade tenor.</li> <li>Prior to OceanaGold's involvement in the project, quality control insertions consisted of blanks, certified reference materials, and duplicates. The majority of pre-OceanaGold drilling relates to open-pittable resources. Overall assay quality is considered to be acceptable for estimating open pit resources. This is substantiated by open pit resource model to grade control reconciliation, which shows no evidence of adverse or significant grade biases in resource drilling.</li> <li>All analysis by OceanaGold has been accompanied by insertion of blanks, certified reference materials, and duplicates. QC data is actively managed and compiled and reported monthly. OceanaGold staff have worked closely with SGS laboratory staff to improve analytical performance.</li> <li>The accuracy and precision of gold and copper assaying for underground drill core samples is considered to be acceptable for use in resource estimates and supports the Mineral Resource classification applied.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	deposit has been mined in open pit. The underground section of the orebody is being actively mined. Mining production and mine to mill reconciliation provides significant verification of

Criteria	JORC Code explanation	Commentary
		<ul> <li>assaying process at SGS Didipio Mine Laboratory was carried out by RSC Consulting Ltd of Dunedin in March 2015. RSC concluded that the SGS Laboratory at the Didipio Mine operates at an acceptable level of quality. The audit included a number of recommendations for improvement, the majority of which had been implemented prior to a follow up visit by RSC in Dec 2015.</li> <li>The majority of drilling in the underground resource is diamond core with good recovery. As a result, hole twinning was not considered necessary.</li> <li>All assay and drill hole data for Didipio are imported and stored in an acQuire database managed by OceanaGold staff offsite from Didipio mine site. Assay results were direct loaded to OceanaGold file server with access limited to Mine Geology personnel in Didipio and database manager in Makati office.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Prior to 2011, most surveys were done in a local Drill Grid set up by Surface-Tech Survey (STS) from Perth. Drill holes up to DDDH 65 were relocated by STS, DDDH 66 to 83 were located using compass and tape from local secondary control points. All 2008-hole pickups were done by McDonald Consultants Inc. from Manila using total stations.</li> <li>The Drill Grid is oriented 51° west of true north on the UTM WGS84 Zone 51 grid</li> <li>By 2013 drilling data had been converted to Project Grid, which is a modified UTM WGS84 Zone 51 grid, XY coordinates are UTM with 2000 m added to the Z coordinate. Since 2013 drill hole collars have used this grid and are located using an RTK GPS unit operated by OceanaGold.</li> <li>The underground mine operates on an</li> </ul>

Criteria	JORC Code explanation	Commentary
		underground mine grid rotated 44° east of the UTM WGS84 Zone 51 grid. The coordinate transformation is as follows:
		Coordinate System 1:
		Point 1 X: 333150.00000 Point 2 X: 3357
		Point 1 Y: 1804140.00000 Point 2 Y: 1804
		Point 1 Z: 0.00000 Point 2 Z: 0.00
		Coordinate System 2:
		Point 1 X: 1260.00000 Point 2 X: 3115
		Point 1 Y: 3220.00000 Point 2 Y: 5012
		Point 1 Z: 0.00000 Point 2 Z: 0.00
		<ul> <li>All underground holes drilled since 2015 have been located by OceanaGold survey staff using a Leica Total Station instrument based on a local datum point.</li> <li>In August 2017, the underground survey control and control datum point were checked by Cardno Spectrum Surveys, based in Perth Western Australia. No major errors or discrepancies were identified.</li> <li>Underground holes drilled since 2015 have been aligned with survey control to within ±2 degrees. Down hole surveys were measured using Proshot or Reflex magnetic tools, typically at 12 m and 30 m depths and every 30 m interval thereafter where hole conditions permitted.</li> <li>Gyro check surveys were conducted on five holes. Gyro surveyed hole locations closely match hole traces calculated from magnetic surveys.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>A detailed pickup has been made of the base of the completed open pit, including sumps, and wall stability is monitored using radar.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The mineralised porphyry system at Didipio has a sub-vertical dip.</li> <li>Initial drill definition of the underground resource was from steeply dipping holes drilled from surface. Drill access drives have now been developed on the south (UG grid) or 'footwall' side of the ore-body.</li> <li>Underground drill holes have been drilled in vertical fans on 20 m spaced sections from the 2430 mRL and 2370 mRL mining levels. The holes on each fan were designed with a vertical spacing of no more than 25 m within the zone of mineralisation. These holes replace the earlier sub-vertical holes drilled from surface.</li> <li>The resource definition drill spacing in Panel 1 is considered adequate to define ore without requiring further sampling during mine development.</li> <li>Panel 2 is mostly still defined on steeply inclined drill holes. Infill drilling has started on underground development at the 2280 mRL aiming to cover 60 m spacing along strike. Sampling interval is within a range from 0.3 metre to 1.3 metres, depending on lithological boundaries. Samples are composited to 3 metres for grade estimation.</li> <li>Metallurgical test work is based on composited samples of quarter-cut diamond core and defined on the basis of lithology and grades.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures</li> </ul>	<ul> <li>Within Panel 1, the drill intersections angles range from 90° to approximately 45°. Drill coverage is unbiased.</li> <li>Within Panel 2, the drill intersection angles are still mostly acute. No bias from drill orientation is present, but there remains relatively high</li> </ul>

	Criteria	JORC Code explanation	Commentary
		is considered to have introduced a sampling bias, this should be assessed and reported if material.	uncertainty on the width of mineralisation in this Panel.
Sample security		The measures taken to ensure sample security.	<ul> <li>All historic cores have been relocated for storage at the Didipio core shed and yard. All surface core drilled by OceanaGold was transported, cut, and dispatched by OceanaGold personnel.</li> <li>All underground core is sampled and assayed on site.</li> <li>Half cut core remains on site in the core shed should further check assaying or metallurgical sampling be required.</li> </ul>
Audits or reviews		The results of any audits or reviews of sampling techniques and data.	<ul> <li>All data collected since 2008 have been subject to OceanaGold internal operational QA/QC procedures (i.e. insertion and monitoring of blanks, standards, laboratory and field split duplicates).</li> <li>RSC Mining and Mineral Exploration undertook an audit of SGS's laboratory facility in 2015 and concluded that 'currently the laboratory operates at an acceptable level of quality'. The audit included a number of recommendations for improvement, the majority of which had been implemented prior to a follow up visit by RSC in Dec 2015.</li> <li>Quarterly QA/QC monitoring indicates the SGS's laboratory facility is operating within acceptable limits.</li> </ul>

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and	Type, reference name/number, location and ownership including agreements or material issues with third parties	, , , , , ,

Criteria	JORC Code explanation	Commentary
land tenure status	such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	carries minimum expenditure commitments which have been met. The FTAA was renewed for a further 25 years on 14 July 2021.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by othe parties.	<ul> <li>The Didipio area was first recognised as a gold province in the 1970s, when indigenous miners discovered alluvial gold deposits in the region.</li> <li>Between 1975 and 1991, exploration was conducted by a number of different companies including Victoria Consolidated Resources Corporation (VCRC), Fil-Am Resources Inc, Marcopper Mining Corporation, Benguet Corporation, Geophilippines Inc., Cyprus and Arimco Mining Corporation (AMC).</li> <li>Climax took control of Didipio project from AMC in 1991. Ongoing exploration work by Climax resulted in publication of a Definitive Feasibility Study (DFS) in 1998.</li> <li>OceanaGold acquired its interest in the Didipio Project as a result of its merger with Climax Mining Limited in 2006.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.      The setting and style of mineralisation.  Output  Deposit type, geological setting and style of mineralisation.	<ul> <li>The Didipio deposit is an alkalic gold-copper porphyry system, roughly elliptical in shape at surface (450 m long by 150 m wide) and with a vertical pipe-like geometry that extends to at least 800 m below the surface.</li> <li>The Didipio Gold-Copper Deposit is hosted by a series of hydrothermally altered and structurally controlled Miocene intrusives, which were emplaced along the regional Tatts Fault structure. Recent logging and interpretation suggest that continued dilational faulting provided the volume into which successive intrusive and breccia phases were emplaced. An initial non-mineralised monzonite (Tunja), first intruded as a relatively narrow dyke, is preserved along either margin of the intrusive corridor. This is followed by a multi-phase and variably mineralised monzonite porphyry to monzonite feldspar porphyry intrusion. The bulk of the porphyry mineralisation mined in the open pit belongs to these intrusive phases.</li> <li>Subsequently, a strongly mineralised breccia complex was emplaced. The breccia is spatially associated with a complex magmatic unit (Balut dykes) that contains both felsic and mafic components, possibly representing immiscible phases that separated from deeper levels of the monzonite porphyry intrusive.</li> <li>Finally, a non-mineralised syenite porphyry was intruded. This intrusion also stops vertically around the base of the breccia complex but is believed to post-date the main breccia emplacement.</li> <li>The northern end of the deposit is truncated by a post-mineralisation fault zone, the Biak Shear. The True-Blue deposit is believed to represent the offset portion of main Dinkidi intrusive.</li> <li>In places, the fibrous mineral actinolite/tremolite occurs as an alteration product in the mineralised porphyries. The content varies though it is generally &lt;1%. OGPI are currently assessing the nature of this mineral occurrence and potential</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>risk to health.</li> <li>Chalcopyrite and gold (electrum), along with pyrite and magnetite, are the main metallic minerals in the deposit. Some bornite is present. The strongest gold grades in the breccia complex are associated with pyroxene.</li> <li>Visible gold is not common but has been detected in drill cores. Polished section and scanning electron microscope studies have resulted in identification of gold both as isolated grains (up to 80 microns in diameter) and as 2–15-micron grains either on the margins of, or as inclusions in, chalcopyrite and galena. Gold grades are commonly higher where bornite is present.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Not applicable. This Table relates to the reporting of Mineral Resource estimates
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable. This Table relates to the reporting of Mineral Resource estimates
Relationship between	<u> </u>	Not applicable. This Table relates to the reporting of Mineral Resource estimates

Criteria	JORC Code explanation	Commentary
mineralisatio n widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Not applicable. This Table relates to the reporting of Mineral Resource estimates
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Not applicable. This Table relates to the reporting of Mineral Resource estimates
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Not applicable. This Table relates to the reporting of Mineral Resource estimates
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Resource definition drilling is on 20 m sections and will continue across the extents of the underground as the mine is developed.</li> <li>Ongoing investigation of exploration potential, including drilling, petrological studies and multi-element geochemistry, in the immediate underground environment</li> <li>Ongoing geometallurgical work both in house and in partnership with University of Queensland.</li> </ul>

## **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	databases. Because of changes in logging protocols, most early surface holes
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	his last visit to the site was in November 2018 to conduct an internal audit of the
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>database of pit mapping and grade control sampling. This confirmed the initial geological interpretation, with no major revision required.</li> <li>All underground drill core (commenced in 2015) has been logged to a consistent scheme, and the majority of earlier surface holes that penetrate the underground resource have also been re-logged to the same scheme. Peer review and team logging exercises are used to ensure consistency in logging.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>separately to the monzonite intrusive package, the high-grade central breccia complex, a smaller breccia pipe on the east and the post-brecciation Bufu syenite are also treated separately.</li> <li>Within the suite of mineralised intrusives, gold and copper grades are gradational, with the highest grades occurring in the breccia complex and the associated alteration halo. Different estimation parameters are applied inside and outside the modelled brecciation halo.</li> <li>The overall geometry of the mineralisation is sub-vertical, reflecting the geometry of the intrusive complex and the hydrothermal systems associated with that. Grade continuity is accordingly also greatest in the sub-vertical direction.</li> <li>On the western side of the Panel 2 underground resource, directly below the base of the breccia complex at 2280 mRL, the geometry of mineralisation changes from a broad footprint to narrower higher-grade zones, interpreted to be the feeder zones of the breccia. This interpretation will be tested by drilling once appropriate drill platforms become available.</li> <li>At the eastern end, of the deposit, broader zones of disseminated porphyry style mineralization continue down-plunge.</li> </ul>
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>At the resource reporting cut-off grade (0.67 g/t AuEq), the mineralisation at Didipio presents a coherent geometry with a width of 60-150 m, a strike length of 300-500 m and a known vertical extent from original surface outcrop downwards to at least 800 m below surface.</li> <li>The resource estimate reported here is between the base of surface mining at 2460 mRI and the base of Panel 2 at 2080 mRL.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of byproducts.</li> </ul>	<ul> <li>15 mRL. In the cross strike (N) dimension the block size is governed by likely stoping selectivity (ring burden) in that dimension.</li> <li>Au, Ag, Cu, S, and Fe were estimated.</li> <li>Estimation was performed using MineSight software.</li> <li>Assays were composited to 3 m downhole lengths prior to estimation.</li> <li>All elements were estimated independently. While gold and copper are clearly associated, correlation is relatively poor (0.36). The mineralisation association is preserved by use of similar estimation parameters.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>structure ranges on the order of 10-36 m, and second structure ranges up to 30-150 m. Within porphyry mineralisation styles, continuity is shortest in the cross-strike direction while within the breccia ranges are broadly anisotropic.</li> <li>A similar search strategy was used for all domains. Estimation for each variable in each domain was carried out in a single pass, with the neighbourhood size dynamically controlled by the maximum number of samples parameter. The neighbourhood selected was deliberately kept relatively tight to limit smearing in the cross-strike direction as sampling is clustered in this direction (i.e. along drill holes).</li> <li>Sample selection was limited to the domain being estimated, except for the east breccia pipe, which allowed samples from the enclosing monzonite to be selected (i.e. the boundary of the breccia halo is soft in one direction).</li> <li>Blocks were allowed to see up to the maximum search distance of the search ellipse to ensure the model is sufficiently filled especially for Panel 2, however the estimation was also controlled by setting minimum samples needed to estimate a block.</li> <li>The compositing process mitigates the effects of individual high grades and substantially reduces the variance of data prior to estimation. No further grade capping methods were used for this estimate.</li> <li>Gold equivalence block grades were calculated from the estimated gold and copper grades, based on Net Smelter Return and economic assumptions of: <ul> <li>USD1,700/oz gold and USD3.50/lb copper for resources</li> <li>Gold recovery of 91.9% and Cu recovery of 91.8%</li> </ul> </li> <li>Silver, Fe and S grades were also estimated using the 3m composites and using ordinary kriging.</li> <li>The results of grade estimation were checked by visual inspection to ensure that all intended blocks were filled, and the resultant grade estimates appeared sensible.</li> <li>Global block grade statistics were compared to de-clustered sample grades by domain. Swath plots were used</li></ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Cut-off grades are applied to gold equivalence, where AuEq = Au + 1.39 x Cu%.</li> <li>Cut-off grades have been calculated using realised production costs for mining, processing, admin costs, mining recoveries for gold and copper, royalties and</li> </ul>

Criteria	JORC Code explanation	Commentary
		refining charges and OceanaGold's corporate assumption on future metal prices.  • During 2020 resources adjacent to stope designs were re-evaluated. Resources immediately adjacent to development already planned and costed to access the high-grade stopes were re-evaluated with the costs for access development removed (sunk cost). The cut-off grade of 0.67 g/t AuEq (ie incremental cut-off) was reduced from the 0.76 g/t AuEq cutoff used in 2020. For reporting purposes, a 3D wireframe was built to define the volume immediately adjacent to development already planned and costed. As a result, the global resource cut-off used in 2021 was 0.67 g/t AuEq, a reduction from the 0.76 g/t AuEq cutoff used in 2020.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Large-scale open pit mining was completed in 2017. The Crown Stabilisation Project (CSP) provides an engineered crown pillar solution for the transition zone between the base of the pit and the underground and is discussed in Section 4.</li> <li>Underground mining below the open pit floor is via Long Hole Open Stoping (LHOS) with paste backfill. A more detailed discussion can be found in Section 4.</li> </ul>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>During mining of the open pit, ROM cut-off grade fluctuated to ensure that the mill was fully fed, as a result cut-off grade varied from approximately 0.8 g/t to 2.5 g/t, averaging approximately 1.5 g/t. During this time &gt;20 Mt of ore grade material between a low-grade cut-off of 0.45 g/t. AuEq and ROM cut-off was stockpiled.</li> <li>During the latter half of 2017, mill feed was entirely from these stockpiles. The majority of stockpile material processed during this period was ≤ 3 years old.</li> <li>Stockpile drilling and metallurgical test work commenced in 2017 to estimate oxidised stockpile performance with age and indicate that maximum ore oxidation will be 10% which will result in a 5 to 7% drop in copper recovery.</li> <li>Several processing options and reagents modification are under evaluation to increase metallurgical performance of stockpile material. Expected copper</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>recovery improvement when the required modification is completed in 2023 is in the range of 2%-3%, which brings back the relative copper recovery drop to 2%-4%.</li> <li>Operating data from 2014-2019 show a good performance in the prediction of plant recovery from models incorporating laboratory testing on ore sources, grind size target and proportion of partially oxidised stockpiles in the feed. Forward estimates of recovery and metal production continue to use the same methods.</li> <li>The underground will provide some higher-grade ore that is above the current grade recovery algorithm built by the metallurgists from the open pit mining period and represents a potential recovery risk.</li> </ul>
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	the weathered material will be alkaline, thereby having an acid-neutralising capacity. Similarly, tailings liquor samples have also been found to be slightly alkaline. It is proposed that, should potentially acid-generating material be identified in the waste (e.g. from low-grade stockpile reject material), it will be placed in engineered cells and encapsulated in non-acid forming waste. Final designs for the TSF, waste dump and the low-grade stockpile are being finalised.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> </ul>	<ul> <li>In situ density determinations have been carried out at regular intervals on a number of drill core samples. The method involved drying and sealing the selected sample with a waterproofing compound, then weighing the sample both in air and in water. Each sample comprised approximately 10 cm of half drill core. The measurements were then averaged for each lithology domains. A 6% factor was applied to the Syenite domain to account for the miarolitic cavities observed in the syenite.</li> <li>Data from a total of 1,573 samples were statistically analysed. The average of</li> </ul>

Criteria	JORC Code explanation	Commentary						
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	bulk density ("B geological codir shown in the ta BD statistics at reviewed in the  The frequency, properly represe Bulk density has rock type.  Moisture contenwidely depending breakage.  Statistics for BD	ng. The BI ble below nd values next mode size and nent the room been assumed to was not ng on gro	D statistics Although used for el update. nethod of ek-types pr signed to calculated undwater	s and value un not material, block mode BD determinates ent. the resource of conditions, of the conditions and the conditions are conditions.	sed in the	resource crepancie served a sidered a s average cked mat	model are es between and will be dequate to e values by erial varies
		Lithology Domain	Diorite -10	Biak (11,12)	Monzonite Composite -20	Syenite -40	Balut -51	Breccia (61,62)
		No Samples	674	66	735	42	15	41
		Mean	2.73	2.69	2.53	2.37	2.74	2.47
		Median	2.75	2.74	2.53	2.39	2.62	2.46
		Mean Less Extremes	2.73	2.69	2.52	2.40	2.74	2.47
		Minimum	2.00	2.20	1.21	1.37	2.09	2.17
		Maximum	3.65	3.11	8.72	2.66	3.36	2.79
		Value Used	2.72	2.72	2.50	2.35	2.50	2.50
Classification	On . The basis for the electification of the Mineral Resources	* Mean excluding v  • Additional BD mincluded in the concluded in the conclusion in the conclusion.	neasureme current res	ent have to	peen undertal imate.	ken in 2019		
Ciassificatio	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity</li> </ul>	<ul> <li>Classification is dependent on of influence class estimation methodologies</li> <li>Inferred Resource</li> </ul>	drilling der drification a drodology stimation	nsity. It is are adeq (e.g., Krig quality to i	considered t uately encap jing was use ndividual bloc	hat all othesulated with to store cks);	er factors rithin the metrics	s that may resource of sample

Criteria	JORC	Code explanation	Co	ommentary
	<ul><li>Wł</li></ul>	d distribution of the data). hether the result appropriately reflects the Competent erson's view of the deposit.		x 45 m; Indicated Resources are defined where drill hole spacing is up to 45 m x 45 m, but typically considerably significantly less. A minimum of 10 samples are found inside the search elipse, and the kriging slope of regression is $\geq 0.25$ . However, the vast majority of slope regression within Indicated Resources is $> 0.90$ . As a result, the average kriging slope regression is 0.95; and Measured Resources are defined based on a volume interpreted around the area of completed grade control infill drilling within which no further sampling prior to mining is anticipated. Within the volume defined as Measured, drill hole spacing is up to 25 m x 25 m and the average kriging slope of regression is 0.98.
Audits or reviews		ne results of any audits or reviews of Mineral Resource timates.	•	OceanaGold conducts a regular program of governance reviews of their operations. The review team includes both internal technical staff and external consultants.  The Didipio operation's last technical review was in July 2018 and included examination of the Panel 2 resource estimate. The conclusion of that review was that there is a moderate degree of uncertainty about the controls on mineralisation in Panel 2. Therefore, further drilling is required to address geological interpretation and grade estimation uncertainty.  The resource estimate was then peer reviewed in November 2018 to validate the changes made after the technical review.  Bosta Pratama from Cube Consulting have visited the site last June 2018, and was involved in developing the workflow for the resource estimation.  The internal review on resource estimation carried out in December 2021 by Wesly Randa, Principal Resource Geologist for Oceanagold. No material issues were found, the review completed using independent estimation parameters and the variation < 2%.  No external audit of resource estimates has been carried out.
Discussion of relative accuracy/ confidence	and usi the sta rela lim a q rela	there appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate ing an approach or procedure deemed appropriate by a Competent Person. For example, the application of atistical or geostatistical procedures to quantify the lative accuracy of the resource within stated confidence in the state of the state of the lative discussion of the factors that could affect the lative accuracy and confidence of the estimate.	•	No quantification of the relative accuracy of the resource estimate has been carried out.  The underground Mineral Resource is the down-dip extension of the resource mined successfully in the completed open pit and includes additional mineralised domains.  The estimation approach adopted for the underground resource is considered appropriate.  In Panel 1 of the underground mine further drilling for the purpose of more detailed resource definition prior to commencement of mining has been

Criteria JO	RC Code explanation	Commentary
•	or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	confidence in the vertical extent of the mineralisation. Infill drilling is planned to convert resource to Measured prior to mining.

Criteria	JORC Code explanation	Commentary
Ollion I.a.	oono oxpianation	- Commontary

Table 5: Resource Estimate versus Trucked Estimates at 0.5 g/t AuEq cut-off

Year		Res	source M	lodel			Mill-	Adjusted	Mine	
	Mt	Au	Cu%	Au Moz	Cu Mt	Mt	Au	Cu%	Au Moz	Cu Mt
2017	3.76	1.42	0.47	0.17	0.018	3.67	1.68	0.55	0.20	0.020
2016	9.92	0.78	0.39	0.25	0.039	9.11	0.86	0.45	0.25	0.041
2015	7.36	0.82	0.45	0.19	0.033	7.13	0.82	0.47	0.19	0.033
2014	7.95	0.68	0.52	0.17	0.014	8.06	0.68	0.54	0.18	0.043
2013	7.82	0.61	0.59	0.15	0.046	8.82	0.55	0.58	0.16	0.052
2012	0.67	0.29	0.59	0.01	0.004	0.28	0.29	0.49	0.00	0.001
Total	37.5	0.78	0.48	0.94	0.181	37.5	0.82	0.52	0.99	0.194

Underground mining ramped up in 2017, with underground ore trucked to the ROM pad and blended with open pit stockpile (as well as with 800 kt of in-pit mined breccia) mill feed. Whilst the reconciliation process for the combined open pit and underground mine against mill feed is relatively straight forward, the allocation of metal between the underground and open pit feed sources is less definitive. Todate the allocation has been based upon mine claim ratios. The table below indicates that the combined feed sources reconcile well against the mill. That the combined mine to mill reconciliation during 2018 and 2019 was reasonable provides no evidence for poor performance for either mill feed source. The 2021 reconciliation during ramp up is less favourable, albeit is based upon a relatively small tonnage. Mining of a crown pillar at the base of the open pit to allow geotechnical strengthening with cement commenced in 2021 and provided the main source of mill feed. Grade control sampling of the crown pillar was sub-optimal because the focus was on geotechnical strengthening rather than ore extraction. The underground reconciliation is expected to improve as the crown pillar is exhausted in early 2022.

JORC Code explanation	Commenta	ary								
		Ta	able 6: (	Combi	ned Ope	en Pit a	nd Und	dergrou	nd vs	Mill
	Year		Reso	urce Es	timate				Mill	
		Mt			Au Moz	Cu Mt	Mt	Au g/t	Cu%	Au
	2021 2020	0.64	1.07	0.38	0.022	0.002	0.63	0.92	0.43	0.
	2019	2.23	1.26	0.44	0.090	0.010	2.33	1.21	0.44	0.0
	2018	2.27	1.16	0.49	0.084	0.011	2.22	1.26	0.49	0.0
	Total	5.15	1.19	0.46	0.197	0.023	5.19	1.19	0.46	0.1

amp up into underground mining

Mill Au g/t Cu% Au Moz Cu Mt

0.019

0.090

0.090

0.199

0.003

0.01

0.011

0.024

As the underground operation ramps up towards steady state, the allocation process will transition to attributing the open pit stockpiles their full claim; the stockpiles have been grade controlled with closely spaced sampling and the open pit feed has shown good reconciliation performance (2013 to 2017). Once steady state underground production is reached, the stockpiles will contribute approximately 25% of the contained gold to mill feed. On this basis, a ±5% error (for a three-month period) in the stockpile grade estimate would project less than ±2% error onto the underground feed. This is believed to be an acceptable approach given the absence on full stream belt cutters or other feed source samplers.

## **Section 4 Estimation and Reporting of Ore Reserves**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	the OceanaGold Competent Person. The Mineral Resource estimate has been evaluated by the engineering team who agree with the validity of the estimate.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for this report is Phillip Jones, Group Mining Engineer (Underground) for OceanaGold, who last visited site in January 2020.</li> <li>Site visits have not been possible since the outbreak of COVID-19 in March 2020</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul> <li>Ore Reserves were first reported at Didipio in 2011 and have been updated annually since.</li> <li>The Ore Reserve estimate is based on a mine design, mine plan, and cash flow model Following a feasibility study in 2014, underground development commenced in Apri 2015 with first production in December 2017.</li> <li>Operations were suspended in July 2019 following the expiry of the initial term of the FTAA. The FTAA was renewed in July 2021. Processing and underground production restarted in November 2021.</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>An operating cut-off grade of 1.16 g/t AuEq was used for production stoping, whilst an incremental cut-off-grade of 0.76g/t AuEq, which excludes some operating costs associated with sunk development costs.</li> <li>Gold Equivalence grade is calculated as: Grade (AuEq) = Grade Au (g/t) + (1.37 x Grade Cu(%))</li> <li>During 2020 resources adjacent to stope designs were re-evaluated; resources immediately adjacent to development already planned and costed to access high grade stopes were re-evaluated with the costs for access development removed (sunk cost) For these areas adjacent to higher grade stopes, this lowered the cut-off from 0.87 g/t AuEq to 0.76 g/t AuEq and allowed additional incremental reserves to be included.</li> <li>Cut-off strategy at Didipio is also driven by value to the project. Based on updated cost</li> </ul>

Criteria	JORC Code explanation	Commentary
		estimates from first principles, a slightly lower cut-off grade could be used. However, this would result in additional low-grade stopes on the northern section of the orebody being introduced to the mining schedule, delaying higher grade stopes to the south, resulting in a reduction in NPV due to the deferment of higher-grade ore. Therefore, the operating cut-off grade of 1.16g/t is used to maximise value from the underground schedule.
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and preproduction drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>sublevels and 20 m crosscut spacings. A transverse primary/secondary stoping sequence with paste backfill is utilised. Primary stopes are mined first and will generally have side walls formed in rock, as no adjacent stopes have yet been mined. Secondary stopes are mined in between previously extracted paste filled stopes, and generally have stope walls and the crown formed in paste backfill.</li> <li>Access to the orebody is via a single decline and central level access drive. A second portal is utilised for emergency egress.</li> <li>The mine is ventilated by two 5.5 m raise bored exhaust rises with intake via a single 5.5 m raise bored rise and the two portals</li> <li>The Crown Stabilisation Project (CSP) involves backfilling of the base of the open pit with cemented rock fill (CRF) to provide an engineered crown pillar solution for the underground mine. The CSP enables a top-down mining sequence, reduced geotechnical risks, higher mining recoveries, and earlier access to high grade ore in the mining schedule. Backfilling of the CSP will be complete in 2024.</li> <li>A top-down mining sequence results in higher mining recovery compared to previous versions of the production schedule (bottom-up with sill pillars).</li> <li>Mining dilution (waste) is applied and ranges from 0% to 5% depending on activity type. Primary stope overbreak is generally ore from surrounding (yet to be mined) secondary stopes. Paste dilution is anticipated to be higher for secondary stopes, however for planning purposes, all stopes are assigned 5% overbreak at zero grade.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>2) of the mine.</li> <li>OceanaGold own and operate the underground mining fleet comprising three long-hole rigs, three jumbos, four loaders, and six trucks.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul> <li>operation using conventional technology.</li> <li>Recovery of copper and gold is achieved through a conventional SABC comminution circuit followed by sulphide flotation. Gravity recovery devices are used to separate out free gold from the flotation concentrates.</li> <li>Plant capacity rates under the existing ECC permit of 3.5 Mtpa has been achieved since 2015 with milling rates of up to 4 Mtpa demonstrated in 2019.</li> <li>Recoveries of copper and gold have been in line with metallurgical testwork programmes carried out. The effects of surface oxidation on stockpiled low grade open pit material has been classified in laboratory and plant trials.</li> <li>Production forecasting and budgeting processes incorporate the testwork, grind size and age of stockpiled material</li> </ul>
Environmental	<ul> <li>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</li> </ul>	<ul> <li>ARD and PAF studies have been completed which indicates a naturally self-neutralizing property of the ore body (siderite and calcite). Since operation commencement, there has been no recorded occurrence of ARD.</li> </ul>
Infrastructure	<ul> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can</li> </ul>	<ul> <li>All necessary surface infrastructure is constructed. Significant underground infrastructure is already in place. Additional infrastructure, including the lower pump station, will be constructed as dictated by the mine development schedule.</li> </ul>

Criteria	JORC Code explanation	Commentary
Costs	<ul> <li>be provided, or accessed.</li> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>principals, resulting in more precise forecasting for all anticipated life of mine costs.</li> <li>Over the life of the operation to date, there has been no impact of deleterious elements to financial arrangements.</li> <li>The operation's financial transactions are based on USD currency denomination.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul> <li>Gold equivalence block grades were calculated from the estimated gold and copper grades, based on Net Smelter Return and economic assumptions of:         <ul> <li>U\$\$1500/oz gold and U\$\$3.00/lb copper</li> <li>Silver is reported and recovered but is not used in the economic assessment of reserves as it is considered to be an incidental by-product.</li> <li>Gold recovery of 91.9% and Cu recovery of 91.8%</li> <li>Contractual payable metal in dore and concentrate.</li> <li>Contractual freight, wharfage, and shipping charges.</li> <li>Refining and penalty charges (penalties have never been incurred).</li> <li>Royalties and Excise Duties.</li> </ul> </li> <li>A sensitivity analysis was completed for the gold price at ±U\$\$250/oz</li> <li>A sensitivity analysis was completed for the copper price at ±U\$\$0.50/lb</li> </ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> </ul>	Gold is sold directly to Perth mint at spot prices. Copper is sold to a third-party broker once it reaches the export port within the Philippines.

Criteria	JORC Code explanation	Commentary
	<ul> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>predictions from a variety of industry recognized institutions.</li> <li>Didipio economics have been completed using a discounted cash flow model. Financial indicators examined for the project include Net Present Value (NPV) and All in Sustaining Cos (AISC).</li> </ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	All agreements and licenses are in place and current to enable operations.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the</li> </ul>	<ul> <li>Didipio operates under a Financial Technical Assistance Agreement (FTAA) with the Philippines Government. The FTAA was renewed for another 25 years in July 2021. Under the terms of the FTAA, project Net Revenue is shared between the Government of the Philippines and OceanaGold on a 60/40 basis; that is 60% of Net Revenue is the Government's portion and 40% applies to OceanaGold. OceanaGold had a period up to five years after the Date of Commencement of Commercial Production (being April 1, 2013) as a recovery period related to its initial investment. After this period the right of the Government to share in the Net Revenue accrues. Royalties, production taxes, other fees and corporate income tax are included as part of the 60% Government share. Under the Addendum and Renewal Agreement of the FTAA, with effect from 14 July 2021, the 2% NSR is treated as allowable deduction from Net Revenue and no longer part of the additional Government share. Unrecovered pre-operating expenses as defined in the FTAA at that time will be amortized equally for thirteen (13) years starting on the calendar year of the addendum date.</li> <li>Other amendments associated with the FTAA renewal include;</li> </ul>

Criteria	JORC Code explanation	Commentary
	timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	<ol> <li>Provision for an additional Social Development Fund (SDF) equivalent to 1.5% of the gross mining revenue of the preceding calendar year. 1% of the fund will be allocated as Community Development Fund and 0.5% is for the Provincial Development Fund for the provinces of Quirino and Nueva Vizcaya.</li> <li>Listing of at least 10% of the common shares in OGPI on the Philippine Stock Exchange within three years from confirmation of FTAA renewal, which can be extended for another two years as may be required;</li> <li>OGPI to offer for purchase by the Central Bank not less than 25% of its annual gold dore production at a fair market price and on mutually agree terms; and</li> <li>OGPI shall transfer its principal office to a local government unit in either of the host provinces of Nueva Vizcaya or Quirino within two years.</li> </ol>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	The Ore Reserve categories have been assigned based on the Mineral Resource estimate parameters and the Competent Person's judgement based on experience both at this orebody and from within the industry.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>The Company instigates an internal technical reviews which incorporates internal and external experts in the field of geology, engineering, hydrogeology and geotechnical engineering. The last review was conducted in 2018.</li> <li>No material adverse findings to either the Ore Reserve, Mineral Resource or operating findings have been presented.</li> </ul>
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative	on both qualitative and quantitative means. The classification of the underground Ore Reserves is believed to appropriately reflect the accuracy of the estimates.

Criteria	JORC Code explanation	Commentary
	<ul> <li>accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	dilution and recovery factors based on ongoing and likely future stope performance.