

AMG Advanced Metallurgical Group N.V.
Condensed Interim Consolidated Financial Statements
(unaudited)
June 30, 2019

Semi-Annual Financial Report

This report contains the semi-annual financial report of AMG Advanced Metallurgical Group N.V. (“AMG” or “the Company”), a Company which was incorporated in the Netherlands as a public limited liability company on November 21, 2006. The address of the Company’s registered office is WTC Amsterdam, Toren C, Strawinskylaan 1343, 1077 XX Amsterdam.

The semi-annual report for the six months ended June 30, 2019 consists of the responsibility statement by the Company’s Management Board, the semi-annual management report and the condensed consolidated semi-annual financial statements. The information in this semi-annual financial report is unaudited.

The Management Board of the Company hereby declares that to the best of their knowledge, the semi-annual financial statements, which have been prepared in accordance with IAS 34, “Interim Financial Reporting” as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the entities included in the consolidation taken as a whole. The half-year management board report gives a true and fair view of the important events of the past six-month period and their impact on the half-year financial statements, as well as the principal risks and uncertainties for the six-month period to come, and the most important related party transactions.

/s/ Heinz C. Schimmelbusch
Chief Executive Officer

/s/ Jackson Dunckel
Chief Financial Officer

/s/ Eric E. Jackson
Chief Operating Officer

Management Report

AMG is a global critical materials company at the forefront of CO2 reduction trends. AMG produces highly engineered specialty metals and mineral products and provides related vacuum furnace systems and services to the transportation, infrastructure, energy, and specialty metals & chemicals end markets. AMG is organized under two reportable segments: AMG Critical Materials and AMG Technologies. AMG Critical Materials produces specialty metals, alloys and chemicals, including aluminum master alloys and powders, ferrovanadium, natural graphite, chromium metal, antimony, lithium, tantalum, niobium and silicon metal and has major production facilities in the United Kingdom, United States, Germany, Brazil, and France. AMG Technologies produces titanium aluminides and titanium alloys for the aerospace market; designs, engineers, and produces advanced vacuum furnace systems and operates vacuum heat treatment facilities, primarily for the transportation and energy industries and has major production facilities that are located in Germany, France, Mexico and the United States.

AMG encountered significant challenges during the first half of 2019. Pricing for the Company's products have declined substantially in 2019 and profits were adversely impacted as a result. Despite the declines in pricing, revenue for the six months grew moderately by 2%, attributable to a 9% increase in revenue in our Technologies segment offset slightly by a 1% decrease in our Critical Materials segment's revenue. The Technologies segment continued to benefit from the delivery of higher margin turbine blade coating furnaces and nuclear waste recycling furnaces which drove the increase in revenues. ROCE decreased to 19.0% due to the Company's lower overall profitability. The lower profitability also impacted AMG's operating cash flows resulting in \$4.1 million of cash used for the first half of 2019 compared to \$23.6 million of cash provided by operating activities in 2018. Capital expenditures during the six months ended June 30, 2019 decreased to \$25.1 million from \$41.0 million during the six months ended June 30, 2018. The capital expenditures in 2019 are primarily attributable to expansion projects at AMG's vanadium, titanium aluminide, lithium and heat treatment facilities. AMG also returned \$81.4 million in cash to shareholders through its share buyback program and dividends in the first half of 2019. As a result of these overall cash outflows, AMG's net debt increased to \$108.7 million at June 30, 2019 from a \$0.5 million net cash position at December 31, 2018.

Though the Critical Materials business continues to experience strong demand for its products, it experienced decreased profitability driven largely by lower average prices across all seven business units, partially offset by higher sales volumes of chrome metal, antimony, silicon metal, and lithium. Gross profit for the six months ended June 30, 2019 declined to \$14.2 million from \$95.6 million in the same period in 2018. In particular, the reduced profitability has been driven by the decline in the market price of vanadium. Following a period of steady and significant price appreciation throughout 2018 and into early 2019, vanadium prices started to rapidly decline late in the first quarter of 2019. This market dynamic resulted in the build-up of a substantial volume of high-priced vanadium inventory at December 31, 2018. As prices continued to decline in the second quarter of 2019, AMG determined that the carrying cost of the inventory was not recoverable at current market prices, and a non-cash expense of \$54.7 million was recorded as of June 30, 2019 to reduce the inventory to its net realizable value.

In AMG Brazil, the commissioning and ramp-up of the lithium concentrate plant is proceeding well. The plant operated at 85% capacity during June, and the expectation is to further increase the production levels in the third quarter of 2019. In terms of future lithium projects, the Company has decided to shift attention to increasing capacity at the Spodumene I plant. This project is known as Spodumene I+, and the Company expects it to add an incremental thirty thousand tons of capacity.

AMG Technologies continues to experience strong demand for its turbine blade coating furnaces and nuclear waste recycling furnaces. Despite an 18% decrease versus December 31, 2018, order backlog maintained a high level of \$198.5 million as of June 30, 2019 and the Company signed \$89.4 million in new orders during the first half of 2019. This represents a 0.69x book to bill ratio compared to a 1.56x book to bill ratio in the comparable prior year period. This lower book to bill ratio was negatively impacted by timing, as several large orders were delayed into the third quarter of 2019. While 2019 revenues benefited as a result of the completion of higher value projects in the Engineering business and higher titanium aluminide and titanium master alloy volumes, the overall operating profit decreased to \$18.7 million in 2019 from \$21.5 million in the comparable period of 2018 due to lower prices in the Titanium Alloys and Coatings business.

The AMG Technologies segment continues to grow revenues given increasing market share for low pressure turbine blades destined for the LEAP-X program and focus on titanium aluminide powders for additive manufacturing. The integration of AMG Engineering and AMG Titanium Alloys and Coatings has demonstrated growth opportunities across its various technology offerings by leveraging our strong market position and our leading technology position in the aerospace engine market. AMG is presently completing a long-term business plan that lays the groundwork for the option to organize AMG Technologies as a separately listed company.

AMG's SG&A expenses in the first half 2019 decreased by \$1.6 million, or 2%, compared to the same period in the prior year, driven by lower variable compensation costs.

AMG's cash flows used in operations were \$4.1 million during the six months ended June 30, 2019, as compared to cash flows from operations of \$23.6 million in the six months ended June 30, 2018. Cash flows used in operations in the period were primarily impacted by lower profitability highlighted above. The decrease in working capital in 2019 was a result of lower metals pricing and partially offset the impact of the lower profitability on operating cash flows.

As of June 30, 2019, liquidity was \$441.4 million, comprised of \$271.7 million in cash and \$169.7 million in revolver capacity on the Company's credit facility. AMG monitors its cash and liquidity positions regularly in order to ensure that liquidity exists to maintain operations and the current capital expenditures program. Prior to making any investing decisions, the effects on liquidity are analyzed both in terms of cash availability as well as debt covenant compliance. The Company is currently in compliance with all of its bank covenants. On July 11, 2019, AMG closed on a \$307 million tax-exempt bond, generating proceeds of \$325 million. The bond is unsecured, has a 30-year maturity and yields 4.28%. The use of proceeds will be to build a catalyst recycling facility near its current recycling facility in Cambridge, Ohio.

Management's objectives consistently focus on delivering positive operational results using an efficient asset base as well as generating cash in order to be able to support expansion, research and development, and vertical integration strategies. These objectives are measured by the Company primarily using return on capital employed ("ROCE") and operating cash flow. ROCE is calculated by dividing operating profit by operating capital employed. EBIT, adjusted for exceptional items, is a measure used by management as a proxy for operating profit. Operating capital employed is defined as total assets excluding interest-bearing assets less current liabilities excluding interest-bearing liabilities. This measure takes the profitability of the Company and measures it against the asset base. Short-term incentive plans have ROCE targets and long-term incentive plans require a minimum ROCE for vesting purposes.

Risks and Uncertainties

In our 2018 Annual Report, we have described certain risk categories and risk factors which could have a material adverse effect on our financial position and results. These risks include metal price volatility, mining, customer, supply, legal and regulatory, currency, competition, product quality, safety and liability, financing, and business interruption. The Company believes that the risks identified for the second half of 2019 are in line with the risks that AMG presented in its 2018 Annual Report.

In addition to the developments noted in the first half of 2019, there continues to be global economic uncertainty which may have a negative effect on the operations, profitability, and cash flow of AMG as a whole.

Additional risks currently not known to us, or currently believed not to be material, could ultimately have a material impact on our business, objectives, revenues, income, assets, liquidity or capital resources.

Operational Outlook

In the short-term, our financial results will be impacted by lower prices as we work through our higher cost inventories. Current spot prices across all of AMG's portfolio are significantly below the prices we experienced in the first quarter of 2019. As such we have decided to update our full year EBITDA guidance for 2019 from the previously announced target of \$150 million to \$120 million.

Regarding our long-term guidance, we are extremely pleased with the advancement of our strategic projects. We made excellent progress in operating Spodumene I during the quarter. The plant operated at 85% of capacity during June and we continue to increase production levels. With respect to our vanadium strategy, substantial advancements were made during the quarter as we secured all the necessary financing to build a new catalyst recycling facility near our current recycling facility in Cambridge, Ohio. Lastly, the evaluation of a separate listing of AMG Technologies is progressing as planned.

These transformational projects in lithium, catalyst recycling and in AMG Technologies confirm our confidence in our long-term guidance to deliver an EBITDA level of \$350 million, or more, in 5 years, or less.

AMG Advanced Metallurgical Group N.V.
Condensed interim consolidated income statement
For the six months ended June 30,
In thousands of US dollars

	Note	2019 Unaudited	2018 Unaudited
Revenue	6	650,135	637,769
Cost of sales	10	587,174	488,490
Gross profit		62,961	149,279
Selling, general and administrative expenses		71,175	72,805
Net other operating income		125	124
Operating (loss) profit		(8,089)	76,598
Finance income		(2,360)	(1,382)
Finance cost		18,351	13,261
Net finance cost		15,991	11,879
(Loss) profit before income tax		(24,080)	64,719
Income tax (benefit) expense	7	(7,598)	29,161
(Loss) profit for the period		(16,482)	35,558
(Loss) profit attributable to:			
Shareholders of the Company		(16,269)	35,698
Non-controlling interests		(213)	(140)
(Loss) profit for the period		(16,482)	35,558
(Loss) earnings per share			
Basic (loss) earnings per share		(0.54)	1.19
Diluted (loss) earnings per share		(0.54)	1.12

The notes are an integral part of these condensed interim consolidated financial statements.

AMG Advanced Metallurgical Group N.V.
Condensed interim consolidated statement of comprehensive income
For the six months ended June 30,
In thousands of US dollars

	Note	2019 Unaudited	2018 Unaudited
(Loss) profit for the period		(16,482)	35,558
Other comprehensive income (loss)			
<i>Items of other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:</i>			
Exchange differences on translation of foreign operations		843	(5,084)
Cash flow hedges, effective portion and cost of hedging reserve, changes in fair value		4,544	(22,297)
Cash flow hedges reclassified to profit or loss		1,972	(1,930)
Income tax on cash flow hedges		(1,972)	6,771
Net increase (decrease) on cash flow hedges		4,544	(17,456)
Net other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods		5,387	(22,540)
<i>Items of other comprehensive (loss) income not to be reclassified to profit or loss in subsequent periods:</i>			
Exchange difference on translation of foreign operations- non-controlling interest		(43)	7
Actuarial (losses) gains on defined benefit plans	11	(5,975)	3,929
Income tax benefit (expense) on actuarial (losses) gains	11	567	(1,003)
Net (losses) gains on defined benefit plans	11	(5,408)	2,926
Change in fair value of equity investments classified as fair value through other comprehensive income		1,460	28
Net other comprehensive (loss) income not being reclassified to profit or loss in subsequent periods		(3,991)	2,961
Other comprehensive income (loss) for the period, net of tax		1,396	(19,579)
Total comprehensive (loss) income for the period, net of tax		(15,086)	15,979
Total comprehensive (loss) income attributable to:			
Shareholders of the Company		(14,826)	16,067
Non-controlling interest		(260)	(88)

The notes are an integral part of these condensed interim consolidated financial statements.

AMG Advanced Metallurgical Group N.V.
Condensed interim consolidated statement of financial position
In thousands of US dollars

	Note	June 30, 2019 Unaudited	December 31, 2018
Assets			
Property, plant and equipment	8	363,242	327,951
Goodwill and other intangible assets		34,865	35,130
Derivative financial instruments	16	1,206	7,592
Other investments	16	22,786	21,452
Deferred tax assets	7	49,025	34,112
Restricted cash		907	1,715
Other assets		16,457	11,266
Total non-current assets		488,488	439,218
Inventories	10	262,912	316,715
Derivative financial instruments	16	2,029	1,335
Trade and other receivables		153,697	138,530
Other assets		40,922	39,570
Current tax assets	7	6,714	3,668
Cash and cash equivalents		271,732	381,900
Total current assets		738,006	881,718
Total assets		1,226,494	1,320,936
Equity			
Issued capital		831	812
Share premium		489,546	462,891
Treasury shares	11	(66,704)	(347)
Other reserves	11	(102,819)	(104,274)
Retained earnings (deficit)		(94,257)	(39,158)
Equity attributable to shareholders of the Company		226,597	319,924
Non-controlling interest		23,859	24,119
Total equity		250,456	344,043
Liabilities			
Loans and borrowings	12	363,347	356,997
Lease liabilities	4	32,088	-
Employee benefits	13	156,445	149,217
Provisions	15	29,270	32,527
Other liabilities		5,041	4,371
Derivative financial instruments	16	5,397	5,148
Deferred tax liabilities	7	4,254	7,930
Total non-current liabilities		595,842	556,190
Loans and borrowings	12	9,588	8,947
Lease liabilities	4	3,720	-
Short-term bank debt	12	7,500	15,500
Other liabilities		56,476	61,120
Trade and other payables		186,686	230,939
Derivative financial instruments	16	5,493	8,267
Advance payments from customers		60,484	50,210
Current tax liability	7	24,579	19,675
Provisions	15	25,670	26,045
Total current liabilities		380,196	420,703
Total liabilities		976,038	976,893
Total equity and liabilities		1,226,494	1,320,936

The notes are an integral part of these condensed interim consolidated financial statements.

Equity attributable to shareholders of the Company

(Unaudited)

	Issued capital	Share premium	Treasury shares (note 11)	Other reserves (note 11)	Retained earnings (deficit)	Total	Non-controlling interests	Total equity
Balance at January 1, 2019	812	462,891	(347)	(104,274)	(39,158)	319,924	24,119	344,043
Foreign currency translation	-	-	-	843	-	843	(43)	800
Change in fair value of equity investments classified as FVOCI	-	-	-	1,460	-	1,460	-	1,460
Gains on cash flow hedges, net of tax	-	-	-	4,548	-	4,548	(4)	4,544
Actuarial losses, net of tax	-	-	-	(5,408)	-	(5,408)	-	(5,408)
Net profit recognized through other comprehensive income	-	-	-	1,443	-	1,443	(47)	1,396
Profit (loss) for the period	-	-	-	-	(16,269)	(16,269)	(213)	(16,482)
Total comprehensive income (loss) for the period	-	-	-	1,443	(16,269)	(14,826)	(260)	(15,086)
Issuance of common shares	19	26,655	-	-	-	26,674	-	26,674
Re-issuance of treasury shares	-	-	3,100	-	-	3,100	-	3,100
Purchase of common shares	-	-	(74,560)	-	-	(74,560)	-	(74,560)
Equity-settled share-based payments	-	-	5,103	-	(27,768)	(22,665)	-	(22,665)
Transfer to retained deficit	-	-	-	12	(12)	-	-	-
Change in non-controlling interest	-	-	-	-	(715)	(715)	-	(715)
Dividend	-	-	-	-	(10,335)	(10,335)	-	(10,335)
Balance at June 30, 2019	831	489,546	(66,704)	(102,819)	(94,257)	226,597	23,859	250,456
Ending balance at December 31, 2017	796	432,844	(3,461)	(72,880)	(99,343)	257,956	24,633	282,589
Adjustment on initial application of IFRS 15 (net of tax)	-	-	-	-	(771)	(771)	-	(771)
Adjusted balance at January 1, 2018	796	432,844	(3,461)	(72,880)	(100,114)	257,185	24,633	281,818
Foreign currency translation	-	-	-	(5,084)	-	(5,084)	7	(5,077)
Change in fair value of equity investments classified as FVOCI	-	-	-	28	-	28	-	28
Gains (losses) on cash flow hedges, net of tax	-	-	-	(17,501)	-	(17,501)	45	(17,456)
Actuarial gains, net of tax	-	-	-	2,926	-	2,926	-	2,926
Net profit recognized through other comprehensive income	-	-	-	(19,631)	-	(19,631)	52	(19,579)
Profit (loss) for the period	-	-	-	-	35,698	35,698	(140)	35,558
Total comprehensive income (loss) for the period	-	-	-	(19,631)	35,698	16,067	(88)	15,979
Issuance of common shares	16	30,047	-	-	-	30,063	-	30,063
Re-issuance of treasury shares	-	-	12,019	-	-	12,019	-	12,019
Purchase of common shares	-	-	(12,388)	-	-	(12,388)	-	(12,388)
Equity-settled share-based payments	-	-	2,899	-	(27,099)	(24,200)	-	(24,200)
Transfer to retained deficit	-	-	-	(171)	171	-	-	-
Change in non-controlling interest	-	-	-	-	162	162	619	781
Dividend	-	-	-	-	(5,025)	(5,025)	(732)	(5,757)
Balance at June 30, 2018	812	462,891	(931)	(92,682)	(96,207)	273,883	24,432	298,315

The notes are an integral part of these condensed interim consolidated financial statements.

AMG Advanced Metallurgical Group N.V.
Condensed interim consolidated statement of cash flows
For the six months ended June 30,
In thousands of US dollars

	Note	2019 Unaudited	2018 Unaudited
Cash (used in) from operating activities			
(Loss) profit for the period		(16,482)	35,558
Adjustments to reconcile net (loss) profit to net cash flows:			
Non-cash:			
Income tax (benefit) expense	7	(7,598)	29,161
Depreciation and amortization		20,166	16,222
Asset impairments	8	5,224	(1,032)
Net finance cost		15,991	11,879
Gain on sale or disposal of property, plant and equipment	8	(102)	(42)
Equity-settled share-based payment transactions	14	2,729	3,005
Movement in provisions, pensions and government grants	15	(4,168)	4,675
Working capital and deferred revenue adjustments	10	3,018	(58,607)
Cash generated from operating activities		18,778	40,819
Finance costs paid, net		(12,752)	(7,992)
Income tax paid, net		(10,118)	(9,216)
Net cash (used in) from operating activities		(4,092)	23,611
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	8	295	122
Insurance proceeds on property, plant and equipment		-	1,300
Acquisition of property, plant and equipment and intangibles	8, 9	(25,111)	(41,017)
Change in restricted cash		808	-
Other		8	(37)
Net cash used in investing activities		(24,000)	(39,632)
Cash (used in) from financing activities			
Proceeds from issuance of debt		-	346,336
Payment of transaction costs related to the issuance of debt		-	(9,238)
Repayment of borrowings	12	(1,750)	(155,082)
Proceeds from issuance of common shares		3,100	15,923
Net repurchase of common shares		(71,033)	(9,853)
Dividends paid		(10,335)	(5,013)
Payment of lease liabilities		(1,914)	-
Net cash (used in) from financing activities		(81,932)	183,073
Net (decrease) increase in cash and cash equivalents		(110,024)	167,052
Cash and cash equivalents at January 1		381,900	178,800
Effect of exchange rate fluctuations on cash held		(144)	(3,315)
Cash and cash equivalents at June 30		271,732	342,537

The notes are an integral part of these condensed interim consolidated financial statements.

1. Reporting Entity

AMG Advanced Metallurgical Group N.V. (herein referred to as “the Company”, “AMG NV” or “AMG”) is domiciled in the Netherlands. These condensed consolidated interim financial statements (‘interim financial statements’) as of and for the six months ended June 30, 2019 comprise the Company and its subsidiaries (together referred to as ‘the Group’). The Group is primarily involved in the supply of critical materials, producing highly engineered specialty metals and mineral products and providing related vacuum furnace systems and services (see notes 5 and 6).

2. Basis of preparation

These interim financial statements have been prepared in accordance with IAS 34 *Interim Financial Reporting* and should be read in conjunction with the Group’s last annual consolidated financial statements as of and for the year ended December 31, 2018 (‘last annual financial statements’). They do not include all the information required for a complete set of IFRS financial statements. However, selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in the Group’s financial position and performance since the last annual financial statements.

This is the first set of the Group’s financial statements where IFRS 16 has been applied. Changes to significant accounting policies are described in note 4.

3. Use of judgements and estimates

In preparing these interim financial statements, management has made judgements and estimates that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates.

The significant judgements made by management in applying the Group’s accounting policies and the key sources of estimation uncertainty were the same as those described in the last annual financial statements, except for new significant judgements and key sources of estimation uncertainty related to the application of IFRS 16, which is described in note 4.

4. Changes in significant accounting policies

Except as described below, the accounting policies applied in these interim financial statements are the same as those applied in the Group’s consolidated financial statements as of and for the year ended December 31, 2018 (the policy for recognizing and measuring income taxes in the interim period is described in note 7).

The changes in accounting policies are also expected to be reflected in the Group’s consolidated financial statements as of and for the year ending December 31, 2019.

The Group has initially adopted IFRS 16 *Leases* on January 1, 2019. A number of other new standards are effective from January 1, 2019 but they do not have a material effect on the Group’s financial statements.

IFRS 16 *Leases*

IFRS 16 introduced a single, on-balance sheet accounting model for lessees. As a result, the Company, as a lessee, has recognized right-of-use assets representing its rights to use the underlying assets and lease liabilities representing its obligation to make lease payments. Lessor accounting remains similar to previous accounting policies.

The Company applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in retained earnings at January 1, 2019. Accordingly, the comparative information presented for 2018 has not been restated and is presented, as previously reported, under IAS 17 and related interpretations. The details of the changes in accounting policies are disclosed below.

(a) Definition of a lease

Previously, the Company determined at contract inception whether an arrangement was or contained a lease under IFRIC 4 *Determining Whether an Arrangement contains a Lease*. The Company now assesses whether a contract is or contains a lease based on the new definition of a lease. Under IFRS 16, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration.

On transition to IFRS 16, the Company elected to apply the practical expedient to grandfather the assessment of which transactions are leases. It applied IFRS 16 only to contracts that were previously identified as leases. Contracts that were not

identified as leases under IAS 17 and IFRIC 4 were not reassessed. Therefore, the definition of a lease under IFRS 16 has been applied only to contracts entered into or changed on or after January 1, 2019.

At inception or on reassessment of a contract that contains a lease component, the Company allocates the consideration to the contract to each lease and non-lease component on the basis of the relative stand-alone prices.

(b) Lessee arrangements

The Company leases a variety of assets which are primarily comprised of buildings, equipment, machinery and automobiles.

As a lessee, the Company previously classified leases as operating or finance leases based on its assessment of whether the lease transferred substantially all of the risks and rewards of ownership. Under IFRS 16, the Company recognizes right of use assets and lease liabilities for most leases resulting in recognition of these amounts on the balance sheet.

The Company has elected not to recognize right of use assets and lease liabilities for leases of low-value assets. The Company recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Company presents right of use assets within property, plant and equipment, which is the same line item as it presents underlying assets of the same nature that it owns. The carrying amount of right of use assets included within property, plant and equipment is detailed subsequently.

The Company presents lease liabilities as a separate line item within the statement of financial position.

i. Significant accounting policies

The Company recognizes a right of use asset and a lease liability at the lease commencement date. The right of use asset is initially measured at cost, and subsequently at cost less any accumulated depreciation and impairment losses, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The lease liability is subsequently increased by the interest cost of the lease liability and decreased by payments of the lease. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate of the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

The Company has applied judgment to determine the lease term for some lease contracts in which it is lessee that include renewal options. The assessment of whether the Company is reasonably certain to exercise such options impacts the lease term, which significantly affects the amount of lease liabilities and right of use assets recognized.

ii. Transition

Previously, the Company classified property leases as operating leases under IAS 17. These include leases for office space, facilities and equipment. Some leases include an option to renew the lease.

Upon transition to IFRS 16, lease liabilities were measured at the present value of the remaining lease payments for all leases that had previously been classified as operating leases under IAS 17. The future lease payments were discounted at the Company's incremental borrowing rate at January 1, 2019. Right of use assets were measured at an amount equal to the lease liability and adjusted by the amount of any prepaid or accrued lease payments as well as any previously recognized onerous lease provisions.

The Company used the following practical expedients when applying IFRS 16 to leases that had previously been classified as operating leases under IAS 17:

- Applied the exemption not to recognize right of use assets and liabilities for leases with less than 12 months remaining on the lease term at the date of adoption.
- Excluded initial direct costs from measuring right of use assets at the date of initial application.
- Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

- Relied on previous assessments for the determination of onerous leases and adjusted the carrying amount of the right of use asset at the date of initial application by the previous carrying amount of its onerous lease provision.

The Company leases a number of items of production equipment. Some of these leases had previously been classified as finance leases under IAS 17. For these leases, the carrying amount of the right of use asset and the lease liability at January 1, 2019 were determined at the carrying amount of the lease asset and lease liability under IAS 17 immediately before the date of adoption.

(c) Impacts on financial statements

On transition to IFRS 16, the Company recognized additional right of use assets and lease liabilities. The right of use assets were offset by the value of accrued rent amounts that had been classified in other liabilities. Leases that were previously classified within loans and borrowings as finance leases were included in the lease liabilities at their carrying amount as of January 1, 2019. The impact upon transition is summarized as follows:

	January 1, 2019
Right of use assets presented in property, plant and equipment	37,355
Lease liabilities	37,372
Loans and borrowings	(23)
Other liabilities	(17)

When measuring lease liabilities for leases that were previously classified as operating leases, the Company discounted lease payments using the implicit lease rate, if determinable, or its incremental borrowing rate at January 1, 2019. The weighted average rate applied was 3.74%.

Operating lease commitments as at December 31, 2018	44,187
Weighted average rate at January 1, 2019	3.74%
Discounted operating lease commitments at January 1, 2019	36,310
Less:	
Commitments relating to short-term leases	213
Commitments relating to leases of low value assets	180
Add:	
Payments in optional extension periods not recognized as at December 31, 2018	1,432
Additional lease liabilities recognized as at January 1, 2019	37,349
Commitments related to leases previously classified as finance leases	23
Total lease liabilities as at January 1, 2019	37,372

Set out below are the carrying amounts of the Company's right of use assets, which are included in property, plant and equipment in the statement of financial position, and lease liabilities as well as the movements during the period:

	Right of use assets				Lease liabilities
	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Total	
January 1, 2019	33,772	2,739	844	37,355	37,372
Additions	437	125	-	562	562
Depreciation expense	(1,322)	(292)	(141)	(1,878)	-
Interest expense	-	-	-	-	662
Payments	-	-	-	-	(2,576)
Foreign currency translation	(198)	(17)	(5)	(220)	(212)
June 30, 2019	32,689	2,555	698	33,993	35,808

The Company recognized rent expense from short-term leases of \$440 and leases of low-value assets of \$112 for the six months ended June 30, 2019.

5. Segment information

Beginning on January 1, 2019, the Company created AMG Technologies, a new operating division that combines the Engineering and Titanium Alloys businesses. As a result of this realignment, the Company has changed its internal organization and the composition of its operating segments, which resulted in a change in reportable segments. AMG Technologies replaces the former Engineering segment, and the Critical Materials segment now comprises seven operating units: Vanadium,

Superalloys, Tantalum & Lithium, Graphite, Silicon, Aluminum and Antimony. Accordingly, the Company has restated the previously reported segment information for the six months ended June 30, 2018 and as at December 31, 2018.

The following tables present revenue and profit information for the Company's operating segments for the six months ended June 30, 2019 and 2018, respectively. AMG headquarters costs and assets are allocated sixty-five percent to AMG Critical Materials and thirty-five percent to AMG Technologies in 2019 and 2018 based on an estimation of services provided to the operating segments.

Segment information:

Six month period ended June 30, 2019	AMG Critical Materials	AMG Technologies	Eliminations¹	Total
Revenue				
Revenue from external customers	427,103	223,032	-	650,135
Intersegment revenue	1,151	3,659	(4,810)	-
Total revenue	428,254	226,691	(4,810)	650,135
Segment results				
Operating (loss) profit	(26,837)	18,748	-	(8,089)
Six month period ended June 30, 2018	AMG Critical Materials	AMG Technologies	Eliminations¹	Total
Revenue				
Revenue from external customers	432,313	205,456	-	637,769
Intersegment revenue	1,206	1,805	(3,011)	-
Total revenue	433,519	207,261	(3,011)	637,769
Segment results				
Operating profit	55,084	21,514	-	76,598
	AMG Critical Materials	AMG Technologies	Eliminations¹	Total
Segment assets				
At June 30, 2019	862,368	364,126	-	1,226,494
At December 31, 2018	1,100,882	220,054	-	1,320,936
Segment liabilities				
At June 30, 2019	577,662	398,376	-	976,038
At December 31, 2018	700,649	276,244	-	976,893

¹ Eliminations column includes intersegment trade eliminations. The intersegment revenue eliminates against the intersegment cost of sales.

6. Revenue

The Company's operations and main revenue streams are those described in the last annual financial statements. The Company's revenue is derived from contracts with customers, except for immaterial amounts related to hedge accounting.

Disaggregation of revenue

In the following table, revenue is disaggregated by primary geographical market and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the Group's reportable segments (see note 5).

Geographical information:

	AMG Critical Materials	AMG Technologies	Total
Six month period ended June 30, 2019			
Europe	168,830	99,991	268,821
North America	170,767	58,776	229,543
Asia	59,358	63,140	122,498
South America	21,784	836	22,620
Other	6,364	289	6,653
Total Revenue	427,103	223,032	650,135

Timing of revenue recognition			
Products transferred at a point in time	427,103	128,572	555,675
Products and services transferred over time	-	94,460	94,460
Total Revenue	427,103	223,032	650,135

	AMG Critical Materials	AMG Technologies	Total
Six month period ended June 30, 2018			
Europe	179,199	104,696	283,895
North America	170,653	48,017	218,670
Asia	52,010	51,988	103,998
South America	22,923	278	23,201
Other	7,528	477	8,005
Total Revenue	432,313	205,456	637,769

Timing of revenue recognition			
Products transferred at a point in time	432,313	126,690	559,003
Products and services transferred over time	-	78,766	78,766
Total Revenue	432,313	205,456	637,769

Contract balances

The following table provides information about receivables, contract assets, and contract liabilities from contracts with customers.

	June 30, 2019	December 31, 2018
Trade receivables, net of allowance for doubtful accounts	124,785	114,371
Gross amount due from customers for contract work	28,912	24,159
Trade payables – contract work	15,760	12,729
Advance payments	60,484	50,210

The contract assets primarily relate to the Company's rights to consideration for work completed but not billed at the reporting date for furnace construction contracts. The contract assets are transferred to receivables when the rights become unconditional. This usually occurs when the Company issues an invoice to the customer. The contract liabilities primarily relate to the advance

consideration received from customers for furnace construction contracts for which revenue is recognized over time. This will be recognized as revenue over the next three years.

The Company recognized revenues of \$60,556 that were included in the balance of contract liabilities as of January 1, 2019. There were \$313 (2018: nil) of revenues recognized in the six months ended June 30, 2019 that pertained to performance obligations that were satisfied or partially satisfied in previous periods.

7. Income tax expense

The major components of income tax expense in the condensed interim consolidated income statement are:

	June 30, 2019	June 30, 2018
Current income tax		
Current income tax charge	12,410	17,176
Deferred income tax		
Origination and reversal of temporary differences	(16,324)	3,461
Changes in previously recognized tax losses, tax credits and recognized temporary difference for changes in enacted tax rates and currency effects	(3,684)	8,524
Total income tax (benefit) expense	(7,598)	29,161

The June 30, 2019 effective tax rate was impacted by pre-tax losses of \$10,812 for which tax benefits could not be recorded due to the ongoing loss positions in certain Dutch, Chinese, and African entities. Also, during the period ended June 30, 2019, the net recognized deferred tax assets (liabilities) were adjusted to reflect changes in currency rates in Brazil. The impact of the currency rates was a decrease to income tax expense of \$3,732.

The June 30, 2018 effective tax rate was impacted by pre-tax losses of \$15,004 for which tax benefits could not be recorded due to the ongoing loss positions in certain Dutch, Chinese, and African entities. Also, during the period ended June 30, 2018, the net recognized deferred tax assets (liabilities) were adjusted to reflect changes in currency rates in Brazil. The impact of the currency rates was an increase to income tax expense of \$8,599.

8. Property, plant and equipment

Acquisitions and disposals

During the six months ended June 30, 2019, assets with a cost of \$22,357 (2018: \$31,847) were acquired. Additionally, the property, plant and equipment in accounts payable decreased by \$2,136 (2018: decreased by \$8,429) during the six months ended June 30, 2019.

Assets with a book value of \$193 were disposed of during the six months ended June 30, 2019 (2017: \$80) resulting in a gain on sale or disposal of \$102 (2018: \$42).

During the six months ended June 30, 2019, the Company recorded an asset impairment expense of \$5,224 related to engineering costs and equipment as a result of Brazil's expansion. In the period ended June 30, 2018, the Company recorded an asset impairment recovery of \$1,032, of which \$1,300 was related to insurance proceeds for equipment damaged as a result of the fire at the Mibra mine in Brazil in 2018. There were asset impairments of \$268 during the six months ended June 30, 2018.

9. Intangible assets

Intangible assets are tested for impairment annually and when circumstances indicate the carrying value may be impaired. No impairment tests were deemed necessary as there were no indicators of impairment at June 30, 2019 or 2018.

During the six months ended June 30, 2019, intangible assets with a cost of \$618 (2018: \$741) were capitalized.

10. Inventory and cost of sales

As of June 30, 2019, inventory decreased to \$262,912 (December 31, 2018: \$316,715) driven by declining metal prices. During the six months ended June 30, 2019, provision for inventory valuation increased cost of sales by \$56,663, this was primarily

related to write downs on inventories of \$54,679 in our US and German locations due to lower costs of vanadium which is included in the working capital movement in the condensed interim consolidated statement of cash flows. Additionally, AMG incurred \$1,984 of impairment expenses of inventory costing adjustments. During the six months ended June 30, 2018, provision for inventory valuation did not have a material impact on cost of sales.

Cost of sales during the six months ended June 30, 2018, included \$1,375 of business interruption proceeds related to a fire at the Company's Mibra mine in Brazil as an offset to costs. AMG was insured for the damage sustained, and in accordance with IFRS, recognized estimated insurance proceeds once recovery amounts were confirmed.

11. Capital and reserves

Actuarial losses on defined benefit plans for the period ended June 30, 2019 decreased other reserves by (\$5,408) net of tax, while actuarial gains on defined benefit plans increased other reserves by \$2,926, net of tax, in the six months ended June 30, 2018.

During the six months ended June 30, 2019, the Company issued 786,044 (2018: 673,338) common shares in connection with a performance share unit compensation arrangement and stock option arrangements with certain employees. See note 14 for additional information.

Noted below is a roll forward of the treasury shares activity for the six months ending June 30, 2019 and 2018:

	2019		2018	
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>
Beginning balance	7,780	347	123,531	3,461
Shares repurchased	2,602,236	74,560	277,446	12,388
Re-issuance of treasury shares	(91,372)	(3,100)	(277,446)	(12,019)
Treasury shares delivered for share-based compensation	(147,530)	(5,103)	(102,688)	(2,899)
Ending balance	2,371,114	66,704	20,843	931

12. Loans and borrowings

Credit facility

As of February 1, 2018, the Company entered a new \$350,000, seven-year senior secured term loan B facility and a \$200,000 five-year senior secured revolving credit facility. Proceeds from the facility were used to repay AMG's previous credit facility. In addition, AMG Engineering entered into €85,000 of bilateral letter of credit facilities which replaced its letter of credit facilities under the previous syndicated credit facility. AMG will use the excess proceeds of the term loan to provide capital to fund strategic expansion projects.

As of June 30, 2019, the total balance outstanding on the term loans was \$344,750 (December 31, 2018: \$346,500). As of June 30, 2019, available revolver capacity was \$169,619 (December 31, 2018: \$169,605). Interest on the Revolving Credit Facility is based on current LIBOR (or in the case of any loans denominated in Euros, EURIBOR) plus a margin that is dependent on AMG's corporate credit rating. At June 30, 2019 the margin was 2.5%. As part of obtaining the revolving credit facility, the Company is responsible for maintaining first lien Net Debt to EBITDA not to exceed 3.50 to 1. Interest on the Term Loan is based on current LIBOR plus a margin of 3.0%.

As of June 30, 2019, the Company was in compliance with all its debt covenants.

To mitigate interest rate risk the Company has entered into interest rate caps with a notional value totaling \$350,000. See note 16 for additional information on the interest rate hedging activities.

Debt issuance costs

In connection with the term loan and revolving credit facility that were refinanced in 2018, the Company incurred issuance costs of \$9,238, which were deducted from the proceeds of the debt from the term loan. The amounts have been allocated to the term loans and revolving credit facility based on the amount which would have been incurred if the facilities were obtained separately. The amount allocated to the term loans of \$7,155 are shown net against the outstanding term loan balance and are amortized using the effective interest method. The amount allocated to the revolving credit facility of \$2,083 is included in other assets because there were no borrowings outstanding. This is being amortized on a straight-line basis over the life of the facility.

The balance of unamortized costs that net against the book value of this debt was \$5,647 as of June 30, 2019 (December 31, 2018: \$6,221). The balance of unamortized costs recorded in other assets was \$1,346 as of June 30, 2019 (December 31, 2018: \$1,606). The Company has recorded amortization expense of \$834 during the six months ended June 30, 2019 (2018: \$3,476).

Original issue discount

The term loan included an original issue discount (OID) of 50 basis points of \$1,750 which is amortized using the effective interest method. The balance of unamortized costs recorded in other assets was \$1,389 as of June 30, 2019 (December 31, 2018: \$1,521). The Company has recorded amortization expense of \$132 during the six months ended June 30, 2019 (2018: \$89).

Short-term bank debt

The Company's Brazilian subsidiaries maintain short-term secured and unsecured borrowing arrangements with various banks. Borrowings under these arrangements are included in short-term bank debt in the condensed interim consolidated statement of financial position. During the six months ended June 30, 2019, the Company refinanced \$8,000 that is now included in long-term borrowings. The Company had \$7,500 outstanding on these facilities as of June 30, 2019 (December 31, 2018: \$15,500).

13. Employee benefits

As of June 30, 2019, the employee benefits liability has increase to a balance of \$156,445 from the December 31, 2018 balance of \$149,217. The increase in the pension liability is primarily due to fluctuations in the discount rate used in the actuarial assumptions during the six months ended June 30, 2019 as well as slight variation in exchange rate. Many of the liabilities are held in German entities and are subject to fluctuations in the exchange rate.

14. Share-based payments

Equity-settled stock options

During the six months ended June 30, 2019, 58,115 (2018: 27,138) share options were granted under the 2009 AMG Option Plan ("The Plan") to the AMG Management Board as part of their 2019 compensation package, as approved at the Company's Annual General Meeting. One half of the options granted to each option holder will vest on each of the third and fourth anniversaries of the grant date. The vesting is subject to performance conditions related to return on capital employed and share price appreciation. All options under the Plan are equity-settled, in accordance with IFRS 2, by award of options to acquire ordinary shares or award of ordinary shares. The fair value of the options granted during the six months ended June 30, 2019 was calculated as €9.55 (2018: €19.90) using a Black-Scholes model.

In the six months ended June 30, 2019, the Company recorded \$294 of expense related to stock options. There were 133,368 vested stock options exercised during the six months ended June 30, 2019. These options were granted in the years 2015 and 2016, and the Company re-issued 133,368 treasury shares with respect to settling these option exercises. In the six months ended June 30, 2018, the Company recorded \$301 of expense related to stock options. There were 260,234 vested stock options exercised during the six months ended June 30, 2018. These options were granted in the years 2008 through 2015, and the Company re-issued 100,722 treasury shares with respect to settling these option exercises.

Performance share units

During the six months ended June 30, 2019, the Company issued 146,627 (2018: 117,498) performance share units ("PSUs") to certain employees. The Company recorded expense of \$2,435 (2018: \$2,704) related to the outstanding PSUs in the six months ended June 30, 2019.

During the six months ended June 30, 2019, the 2016 PSU awards vested and based on performance conditions the Company issued 786,044 (2018: 673,338) common shares with respect to the settling of the awards.

15. Provisions

Environmental

During the six months ended June 30, 2019, payments of \$4,461 (2018: \$1,058) were made from the environmental provision and provision of nil (2018: \$35) was recorded in 2019.

Restructuring

During the six months ended June 30, 2019, the Company recorded restructuring expense provisions of \$201 (2018: \$1,139) and a reversal of (\$110) (2018: (\$1,032)) primarily related to severance payments due to the continued reorganization in our European operations. The headcount impact on the 2019 restructuring expense was 10 (2018: 10) employees at our European operations. Restructuring payments of \$520 (2018: \$844) were made during the six months ended June 30, 2019.

Warranty

During the six months ended June 30, 2019 the Company made warranty payments of \$655 (2018: \$375), recorded additional provision expenses of \$480 (2018: \$586) and reversals of (\$779) (2018: (\$1,804)) were recorded. Warranty provisions are provided on certain contracts and the provisions are made on a contract by contract basis or on actual claims made by customers. Each contractual warranty is expected to be utilized or derecognized within 12 months.

Cost estimates

AMG Engineering builds a project cost provision for long-term contracts that are completed. The provision is developed on a contract by contract basis and is based on contractor estimates. The provision is utilized or derecognized depending on actual performance of the contracts and expected total of project costs. During the six months ended June 30, 2019, project cost payments of \$1,523 (2018: \$579) were made, additional provision expenses of \$2,614 (2018: \$7,483) and reversal of (\$1) (2018: (\$102)) was recorded.

Partial retirement

To reduce unemployment and create jobs for younger job-seekers, Germany implemented certain regulations in 1996 to enable employees to take early retirement. Although the law is no longer in effect, our German subsidiaries have made provisions for those employees who are eligible per their employment contracts. During the six months ended June 30, 2019, there were provisions recorded of \$1 (2018: \$2), a reversal of (\$4) (2018: (\$51)) and payments of \$93 (2018: \$30).

Restoration, rehabilitation and decommissioning costs

The decommissioning provision represents the accrued cost required to provide adequate restoration and rehabilitation upon the completion of extraction activities. These amounts will be settled when rehabilitation is undertaken. During the six months ended June 30, 2019 there were additional provisions of \$42 related to the ongoing mine operations in Brazil (2018: nil). A discount rate of 6.55% (2018: 8.0%) was used to determine the liability recorded. The liability recorded as of June 30, 2019 was \$5,846 (December 31, 2018: \$4,655).

16. Financial instruments – Fair values and risk management

(a) Accounting classifications and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy at June 30, 2019. The fair value of the financial assets and liabilities are included at the price that would be received to sell the instrument in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions. Methods and assumptions used to estimate fair values are consistent with those used in the year ended December 31, 2018.

June 30, 2019	Carrying Amount	Fair Value		
		Level 1	Level 2	Level 3
Financial assets				
Derivative financial instruments	3,235	-	3,235	-
Other investments	22,786	10,915	-	11,871
Financial assets carried at FVOCI	26,021	10,915	3,235	11,871
Financial liabilities				
Derivative financial instruments	3,147	-	3,147	-
Financial liabilities carried at FVTPL	3,147	-	3,147	-
Derivative financial instruments	7,743	-	7,743	-
Financial liabilities carried at FVOCI	7,743	-	7,743	-

For cash and cash equivalents, trade and other receivables, restricted cash, trade payables, and short-term bank debt, the carrying amounts approximate fair value because of the short maturity of these instruments, and therefore, fair value information is not included in the table above. Loans and borrowings maintain a floating interest rate and approximate fair value.

Derivative financial instruments

The Company views derivative instruments as risk management tools and does not use them for trading or speculative purposes. During the course of operations, including normal purchases and normal sales of product, the Company enters into commodity forward and foreign exchange forward contracts to manage price and currency risks. No significant new contracts were entered into as of June 30, 2019, other than in the ordinary course of business.

In February of 2018, the Company entered into derivative contracts with two financial institutions in connection with the execution of its new credit facility. The contracts include interest rate caps, interest rate swaps, and a cross currency swap. The interest rate caps related to the prior credit facility were unwound and replaced by these contracts. The interest rate cap and swaps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan B facility as well as fluctuations in the exchange rate between the euro and the US dollar. In March 2019, the Company unwound its interest rate swaps and its cross-currency interest rate swap and replaced those instruments with interest rate caps. This determination was made as part of the ongoing risk management process. The interest rate caps have an equivalent notional value as the previous instruments and mitigate the interest rate risk on the Company's credit facility. The Company has not designated these instruments for hedge accounting, and all gains and losses related to the interest rate caps are recognized in profit and loss.

The following are the fair values of the derivative financial instruments at June 30, 2019 and December 31, 2018 along with the balance of unrealized gains (losses) included within equity through other comprehensive income.

	Fair Value		Unrealized gains (losses) included in other comprehensive income	
	June 30, 2019	December 31, 2018	June 30, 2019	December 31, 2018
Commodity forward contract assets	1	-		
Commodity forward contract liabilities	(412)	(526)		
Net commodity forward contracts	(411)	(526)	(396)	(438)
Foreign currency forward contract assets	3,060	2,518		
Foreign currency forward contract liabilities	(7,182)	(11,548)		
Net foreign currency forward contracts	(4,122)	(9,030)	(4,024)	(7,374)
Interest rate forward contract assets	174	6,409		
Interest rate forward contract liabilities	(3,296)	(1,341)		
Net interest rate forward contracts	(3,122)	5,068)	(581)	(1,733)

Other investments

At June 30, 2019, the balance of other investments is comprised of \$7,476 (December 31, 2018: \$7,002) of equity interests in a customer that were received in connection with a contract amendment as well as \$15,310 (December 31, 2018: \$14,450) of investment assets that are held to fund a non-qualified pension liability. The fair value of the equity investment in the customer is estimated by management based on limited information due to legal disputes between the Companies. The pension assets consist of debt securities, equity securities and insurance contracts which are held at fair value. The equity interest in the customer and the insurance contracts held as pension assets are designated as Level 3 financial instruments in the fair value hierarchy due to the utilization of unobservable inputs to derive the estimated fair value of the respective investments. The fair value of the equity investment in a customer has increased \$474 (2018: nil) since December 31, 2018. The value of the insurance contracts has increased by \$978 (2018: \$990) to \$4,395 (December 31, 2018: \$3,417) based on additional purchases made by the Company during the period ended June 30, 2019.

There were no transfers of financial instruments between Levels 1 and 2 for the periods ended June 30, 2019 and 2018. There were also no transfers of financial instruments out of Level 3 for the periods ended June 30, 2019 and 2018.

17. Commitments and contingencies

Commitments

At June 30, 2019, there were commitments for the manufacture and purchase of property, plant and equipment in the amount of \$17,798 (December 31, 2018: \$18,648). This increase relates to AMG Vanadium's capital project to double its spent catalyst recycling capacity by building a new, greenfield plant in the operational vicinity of its current spent catalyst processing plant in Cambridge, Ohio.

Other than the commitments to purchase property, plant and equipment noted above, there have been no material updates to the Company's commitments as discussed in notes 31 and 32 in the 2018 consolidated financial statements.

Contingencies

At June 30, 2019, there were business-related bank guarantees for the benefit of third parties in the amount of \$81,764 (December 31, 2018: \$72,740).

Other than the noted above, there have been no material updates to the Company's contingencies as discussed in note 32 in the 2018 consolidated financial statements.

18. Related parties

Material related party transactions during the period include the recognition of stock-based compensation for certain employees and the exercise and settlement of certain stock-based compensation arrangements. These transactions are disclosed in more detail in notes 11 and 14.

19. Subsequent events

On July 11, 2019, AMG closed on a \$307 million tax-exempt bond, generating proceeds of \$325 million. The bond is unsecured, has a 30-year maturity and yields 4.28%. The use of proceeds will be to build a catalyst recycling facility near its current recycling facility in Cambridge, Ohio.