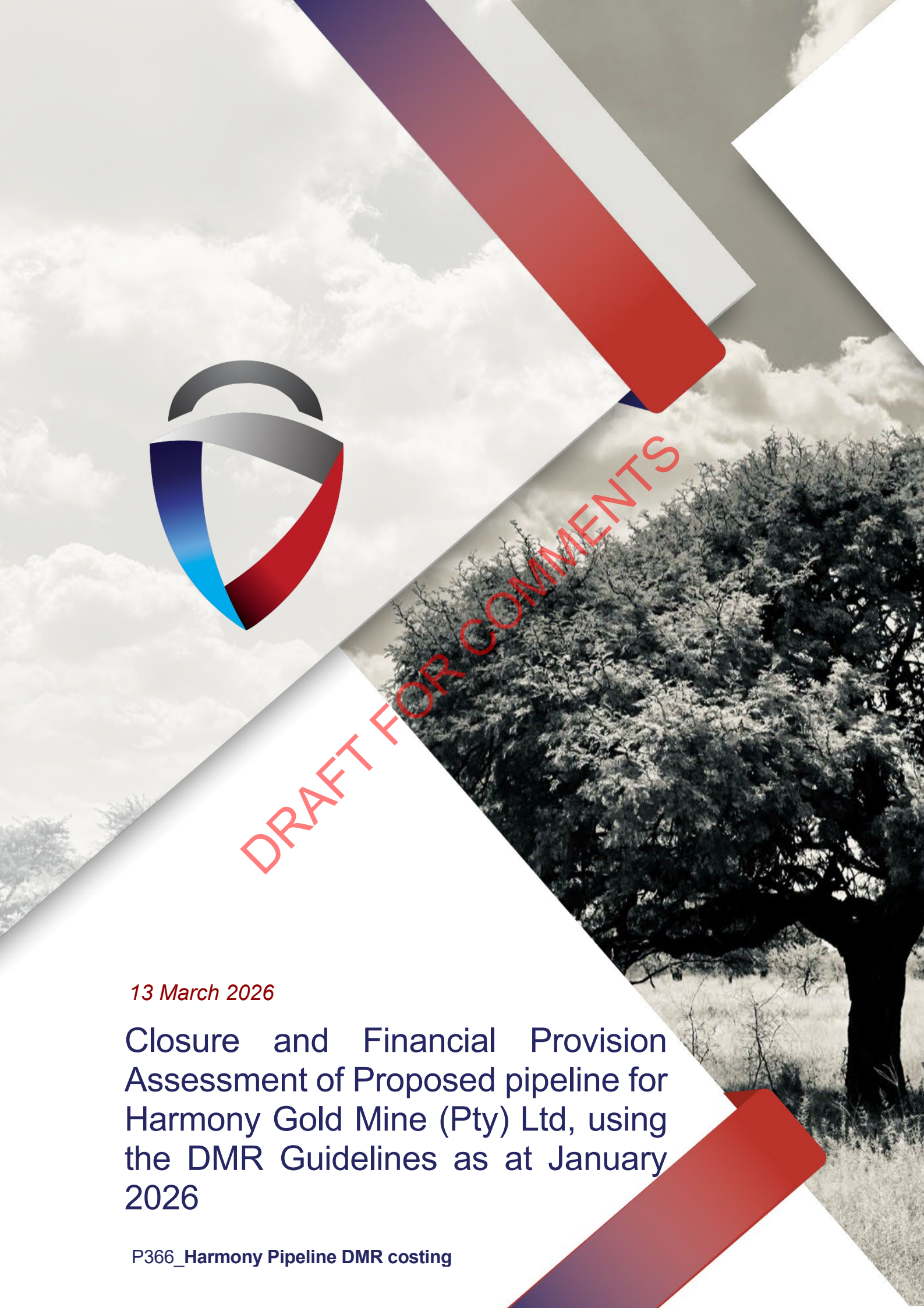

13 March 2026

Closure and Financial Provision Assessment of Proposed pipeline for Harmony Gold Mine (Pty) Ltd, using the DMR Guidelines as at January 2026

P366_**Harmony Pipeline DMR costing**

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1. INTRODUCTION

Harmony Gold Mining Company Limited (Harmony) owns and operates several gold mining operations and processing plants in the Welkom region in the Free State Province. Harmony has identified the need to upgrade the current pumping and pipeline infrastructure from the St Helena 123 & 4 Tailing Storage Facilities (TSFs) and associated Return Water Dams (RWDs) to de risk the operations.

It is therefore proposed to install a new return water pipeline with the following characteristics:

- 11,400 m in length.
- 650 NB 4.5mm wall thickness.
- Flange steel pipe to SANS 719.
- Installed at ground level on prefabricated concrete plinths.
- The design flow rate in this pipeline is 1583m3/hr (439l/s).

The pipeline will be installed between the ST Helena 123 TSF RWD and Dam 13 and in future, the low-pressure water system that forms part of the Free State Reclamation Programme (Nooitgedacht TSF project specifically) and will follow the same corridor proposed for the FSN1 Pipeline Project.

As part of the necessary environmental authorization processes, EIMS (Pty) Ltd (EIMS) appointed MineLock Environmental Engineers (MineLock) to conduct the closure costing according to the DMR Guidelines to accompany the necessary applications.

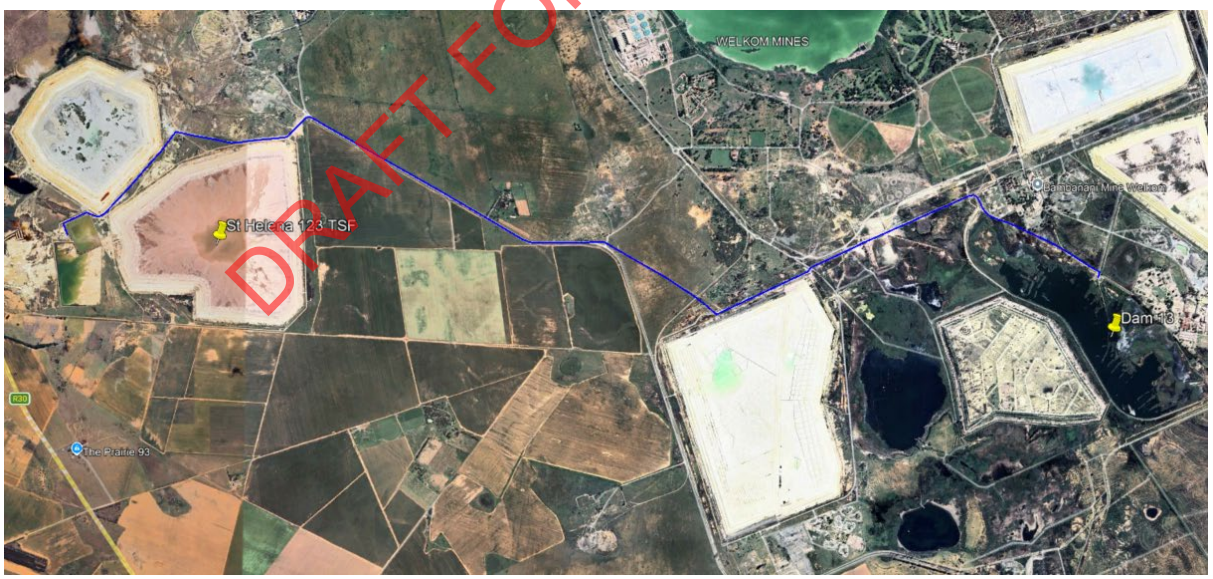

Figure 1: Proposed new pipeline (blue)

2. PROJECT OVERVIEW

The proposed infrastructure for Harmony is located just South of Welkom in the Free State.

The following characteristics of the proposed pipeline is utilised in this closure costing:

- 11.4 km in length
- 650 NB 4.5mm wall thickness pipes (660mm diameter)
- Installed at ground level on prefabricated concrete plinths (0.25mm high and 2 meters in length)

Table 1 presents the structures and features associated with the pipeline project.

Table 1:Activities as per DMR Guidelines

Component	Description	Applicable
1	Dismantling of processing plant and related structures (incl. overland conveyors and Power lines)	Pipeline on plinths
2 (A)	Demolition of steel buildings and structures	N/A
2 (B)	Demolition of reinforced concrete buildings and structures	N/A
3	Rehabilitation of access roads	N/A
4 (A)	Demolition and rehabilitation of electrified railway lines	N/A
4 (B)	Demolition and rehabilitation of non-electrified railway lines	N/A
5	Demolition of housing and/or administration facilities	N/A
6	Opencast rehabilitation including final voids and ramps	N/A
7	Sealing of shafts, adits and inclines	N/A
8 (A)	Rehabilitation of overburden and spoils	N/A
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt producing waste)	N/A
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich waste)	N/A
9	Rehabilitation of subsided areas	N/A
10	General surface rehabilitation	N/A
11	River diversions	N/A
12	Fencing	N/A
13	Water management	N/A
14	2 to 3 years of maintenance and aftercare	N/A

3. CLOSURE COST ASSESSMENT

This section presents the basis of the calculation of the quantum for financial provisions for closure. The assessment and calculations are based on the 2005 DMR 'Guideline Document for the Evaluation of the Quantum of Closure-Related Financial Provision' provided by a Mine (Department of Mineral Resources, 2005).

3.1 Input parameters for quantum provision

No	Input data
1	Risk ranking for mine type and mineral by-product
2	Environmental sensitivity of the mining area
3	Level of information available
4	Type of mining operation
5	Geographical location of the mine
6	Closure components & Areas of disturbance (Components Map)

3.2 Primary Risk Class for type of minerals mined

Although Harmony is a gold mine, the proposed pipeline is for the conveyance of return water and not any slurry material. Thus a Primary Risk Class of C is assumed.

Mineral	Ore	Size: Larger if > than (tpm)	Primary risk class			
			Large Mine		Small Mine	
			Mine and mine waste	Mine, mine waste, plant and plant waste	Mine and mine waste	**Mine, mine waste, plant and plant waste**
Gold		**10 000**	**B**	**A**	**B**	**A**

3.3 Risk Class

	Determine risk class
Class A	a high probability of the occurrence of the impact with a severe consequence,
Class B	a moderate probability of occurrence of the impact with a manageable consequence,
Class C	a low probability of occurrence of the impact with a negligible consequence.

3.4 Area Sensitivity

Area sensitivity			
Sensitivity	Sensitivity criteria		
	Biophysical	Social	Economic
Low	• *Largely disturbed from natural state.* • Limited natural fauna and flora remains. • Exotic plant species evident. • Unplanned development. • Water resources disturbed and impaired.	• *The local communities are not within sighting distance of the mining operation.* • *Lightly inhabited area (rural).*	• *The area is insensitive to development.* • *The area is not a major source of income to the local communities.*
Medium	• *Mix of natural and exotic fauna and flora.* • *Development is a mix of disturbed and undisturbed areas, within an overall planned framework.* • *Water resources are well controlled.*	• *The local communities are in the proximity of the mining operation (within sighting distance).* • *Peri-urban area with density aligned with a development framework.* • *Area developed with an established*	• *The area has a balanced economic development where a degree of income for the local communities is derived from the area.* • *The economic activity could be influenced by indiscriminate development.*
High	• *Largely in natural state.* • *Vibrant fauna and flora, with species diversity and abundance matching the nature of the area.* • *Well planned development.* • *Area forms part of an overall ecological regime of conservation value.* • *Water resources emulate their original state.*	• *The local communities are in close proximity of the mining operation (on the boundary of the mine).* • *Densely inhabited area (urban/dense settlements).* • *Developed and well-established communities.*	• *The local communities derive the bulk of their income directly from the area.* • *The area is sensitive to development that could compromise the existing economic activity.*

3.5 Closure components

Component No.	Main description	Applicable closure components for mine type		
		Open-cast	Under ground	Combination
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)	Yes	No	No
2(A)	Demolition of steel buildings and structures	No	No	No
2(B)	Demolition of reinforced concrete buildings and	No	No	No

Component No.	Main description	Applicable closure components for mine type		
		Open-cast	Under ground	Combination
	structures			
3	Rehabilitation of access roads	No	No	No
4(A)	Demolition and rehabilitation of electrified railway lines	No	No	No
4(B)	Demolition and rehabilitation of non-electrified railway lines	No	No	No
5	Demolition of housing and facilities	No	No	No
6	Opencast rehabilitation including final voids and ramps	No	No	No
7	Sealing of shafts, adits and inclines	No	No	No
8(A)	Rehabilitation of overburden and spoils	No	No	No
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing waste)	No	No	No
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich waste)	No	No	No
9	Rehabilitation of subsided areas	No	No	No
10	General surface rehabilitation, including grassing of all denuded areas	No	No	No
11	River diversions	No	No	No
12	Fencing	No	No	No
13	Water management (Separating clean and dirty water, managing polluted water and managing the impact on groundwater,	No	No	No

Component No.	Main description	Applicable closure components for mine type		
		Open-cast	Under ground	Combination
	including treatment, when required)			
14	2 to 3 years of maintenance and aftercare	No	No	No

3.6 Unit rates for closure components

The components in the DMR guideline that have multiplication factors different than 1 are listed below. It is, however, not necessarily applicable to the cost of this site.

Component 6 - Opencast Rehabilitation:

COMPONENT 6	OPENCAST REHABILITATION			
	UNIT			MASTER RATE
	ha			R 273 869,77
	Multiplication factor			
Risk Class (A, B or C)	A	0.04	0.52	1.00
	B	0.04	0.52	1.00
	C	0.04	0.52	1.00
		Low	Medium	High
	Environmental Sensitivity			

Component 8 (c) - Processing water deposits & Evaporation ponds:

COMPONENT 8 (C)	PROCESSING WATER DEPOSITS & EVAPORATION PONDS			
	UNIT			MASTER RATE
	ha			R 680 284,57
	Multiplication factor			
Risk Class (A, B or C)	A	0.59	0.80	1.00
	B	0.55	0.76	0.90
	C	0.51	0.66	0.81
		Low	Medium	High
	Environmental Sensitivity			

Component 13 – Water Management:

COMPONENT 13	WATER MANAGEMENT			
	UNIT			MASTER RATE
	ha			R 56 643,18
	Multiplication factor			
Risk Class (A, B or C)	A	0.60	0.67	1.00
	B	0.41	0.60	0.67
	C	0.17	0.25	0.33
		Low	Medium	High
	Environmental Sensitivity			

3.7 Weighting Factor 1 and 2

Weighting factor 1.1 are applied to all closure components:

Nature of the Terrain/Accessibility	Flat	Undulating	Rugged
Weighting Factor 1	1.00	1.10	1.20

Weighting factor 1.00 is applied to preliminary and general item only:

Proximity to urban area where goods and services are supplied	Urban	Peri-urban	Remote
Weighting Factor 2	1.00	1.05	1.10

3.8 Escalation

In South Africa, the Consumer Price Index or CPI measures changes in the prices paid by consumers for a basket of goods and services and is published Stats SA (Consumer Price Index, Statistical Release P0141).

The master rates were updated (escalated) by multiplying the master rate of the previous year with the new (average) CPI value. The latest average CPI was published end of January 2026.

Table 2: Consumer price indices headline year-on-year rates

	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Average
CPI (%)	3.5											**3.5**

3.9 Closure methods and assumptions

The DMR Guideline presents generally accepted closure methods, based on experience in the field, which have been used as the basis for determining the Master Rates for the various closure components in the "rules-based" approach. Where relevant, specific reference is made to the site conditions and requirements applicable to the closure of the pipeline at Harmony. In addition, the relevant mine structures and components requiring closure are listed.

3.9.1 Component 1: Processing plant

The common method of valuation to determine the Master Rate for processing plants is that:

- All infrastructure and concrete buildings should be broken down to natural ground level and buried adjacent to the plant site,
- Foundations, structures and conveyors should be broken down to natural ground level,
- The areas are to be covered with 1,0m subsoil, topsoiled with 300mm of topsoil and vegetation established, or as noted in the relevant EMP,
- The monitoring and maintenance of these areas has been costed under the appropriate areas,
- The concrete hardstand is the area between the plant buildings,
- Top soiling and vegetation for the areas are included under general surface rehabilitation, and
- No credits are allowed for scrap steel and equipment that can be re-used or sold.

3.10Costs

The quantum for financial provisions for scheduled closure was estimated using the rule-based approach defined in the DMR Guideline. Refer to Table 3 for a summarised breakdown of the closure cost assessment estimate as of January 2026.

Table 3: Summary of the scheduled closure cost for Harmony pipeline

	CALCULATION OF THE QUANTUM						
	MINE: HARMONY GOLD					LOCATION: FREE STATE	
	EVAULUATORS: MINELOCK ENVIRONMENTAL ENGINEERS (PTY) LTD					DATE: 2026/03/10	
NO	DESCRIPTION	UNIT	A QUANTITY	B MASTER RATE NOV 2025	C MULTIPLICATION FACTOR	D WEIGHTING FACTOR	AMOUNT RAND NOV 2025
1	Dismantling of processing plant and related structures (Including overland conveyors and power lines)	m^3	9 600.16	R 20.61	1,00	1,10	R 217 609.16
2(A)	Demolition of steel buildings and structures	m^2	-	R 287.07	1,00	1,10	R 0.00
2(B)	Demolition of reinforced concrete buildings and structures	m^2	-	R 423.05	1,00	1,10	R 0.00
3	Rehabilitation of access roads Including all haul roads	m^2	-	R 51.37	1,00	1,10	R 0.00
4(A)	Demolition and rehabilitation of electrified railway lines	m	-	R 498.60	1,00	1,10	R 0.00
4(B)	Demolition and rehabilitation of non-electrified railway lines	m^2	-	R 271.96	1,00	1,10	R 0.00
5	Demolition of housing and/or administration facilities	m^2	-	R 574.15	1,00	1,10	R 0.00
6	Opencast rehabilitation including final voids and ramps	ha	-	R 292 208.43	0,52	1,10	R 0.00
7	Sealing of shafts, adits and inclines	m^3	-	R 154.11	1,00	1,10	R 0.00
8(A)	Rehabilitation of overburden and spoils	ha	-	R 200 647.76	1,00	1,10	R 0.00
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing waste)	ha	-	R 249 903.16	1,00	1,10	R 0.00

	CALCULATION OF THE QUANTUM						
	MINE: HARMONY GOLD				LOCATION: FREE STATE		
	EVAULUATORS: MINELOCK ENVIRONMENTAL ENGINEERS (PTY) LTD				DATE: 2026/03/10		
NO	DESCRIPTION	UNIT	A QUANTITY	B MASTER RATE NOV 2025	C MULTIPLICATION FACTOR	D WEIGHTING FACTOR	AMOUNT RAND NOV 2025
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich waste)	ha	-	R 725 837.27	0,66	1,10	R 0.00
9	Rehabilitation of subsided areas	ha	-	R 168 012.29	1,00	1,10	R 0.00
10	General surface rehabilitation	ha	-	R 158 946.88	1,00	1,10	R 0.00
11	River diversions	ha	-	R 158 946.88	1,00	1,10	R 0.00
12	Fencing	m	-	R 181.31	1,00	1,10	R 0.00
13	Water management	ha	-	R 60 436.08	0,25	1,10	R 0.00
14	2 to 3 years of maintenance and aftercare	ha	-	R 21 152.63	1,00	1,10	R 0.00
15(A)	Update geohydrological models	Sum	-	R 442 084.41	1,00	1,10	R 0.00
15(B)	EIA and closure application - includes Public Participation and specialist studies	Sum	-	R 2 526 196.65	1,00	1,10	R 0.00
						Sub Total 1	**R 217 609.16**
						Weighting factor 2 (1.00)	**R 217 609.16**
1	**Preliminary and general**			**12 % of Sub Total 1**			**R26 113.10**
						Sub Total 2	**R 243 722.25**
2	**Contingencies**			**10 % of Sub Total 1**			**R 21 760.92**
						Sub Total 3	**R 265 483.17**
	VAT			**15 % of Sub Total 3**			**R 39 822.48**
						Grand Total	**R 305 305.64**

4. CONCLUSION

The financial provision for dismantling and rehabilitation of the proposed pipeline at Harmony is documented in this Report. Information was provided by EIMS during February 2026. No site visits were conducted.

The Master Rates was escalated with an average CPI published until end of January 2026.

6. REFERENCES

Department of Mineral Resources, 2005. *Guideline Document for The Evaluatuon of The Quantum of Closure-Related Financial Provision Provided by a Mine,* s.l.: s.n.

Department: Statistics South Africa, 2020. Statistical Release P0141. *Consumer Price Index January 2026*, 10 March, p. 6.

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