

IMPACT DESCRIPTION			PRE - MITIGATION								POST - MITIGATION						IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative Impact	Irreplaceable loss	Priority Factor	Final score
Fugitive emissions (dust) from exploration drilling	Alternative 3	Planning	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Reducing groundwater available to existing users	Alternative 3	Planning	-1	3	1	3	1	3	-6	-1	3	1	1	1	2	-3	2	3	2	1,67	-5,00
Interference with existing land uses/livelihoods	Alternative 3	Planning	-1	3	2	3	2	5	-12,5	-1	3	2	2	2	4	-9	3	2	2	1,67	-15,00
Nuisance factor due to increase in ambient dust and noise levels	Alternative 3	Planning	-1	2	1	3	2	5	-10	-1	2	1	2	2	4	-7	2	2	1	1,33	-9,33
Change in travel patterns (longer travelling times and need to change routes due to increase in traffic)	Alternative 3	Planning	-1	4	2	2	1	4	-9	-1	4	2	1	1	4	-8	2	1	1	1,17	-9,33
Damage to farm roads and existing infrastructure	Alternative 3	Planning	-1	3	1	4	2	4	-10	-1	3	2	2	2	4	-9	3	2	1	1,50	-13,50
Impacts on livelihoods due to behaviour of contractors (leaving gates open, driving off-road, leaving garbage on the properties, lack of sanitation facilities)	Alternative 3	Planning	-1	3	2	4	3	4	-12	-1	3	2	3	3	4	-11	3	3	2	1,83	-20,17
Temporary unskilled, semi-skilled and skilled employment opportunities available	Alternative 3	Planning	1	4	2	3	1	5	12,5	1	4	2	4	1	4	11	1	2	1	1,17	12,83
Unrealistic expectations regarding the potential positive economic spin-offs of the project	Alternative 3	Planning	-1	4	2	4	3	5	-16,25	-1	4	2	3	3	4	-12	1	1	1	1,00	-12,00
Influx of people looking for economic opportunities	Alternative 3	Planning	-1	4	2	4	5	4	-15	-1	4	2	3	4	4	-13	1	3	2	1,50	-19,50
Perceptions about the outcomes of the drilling process (what are they looking for?)	Alternative 3	Planning	-1	4	1	3	2	4	-10	-1	4	1	2	2	4	-9	1	1	1	1,00	-9,00
Fears and perceptions about the potential impacts of the project	Alternative 3	Planning	-1	4	1	3	2	4	-10	-1	4	1	2	2	4	-9	1	1	1	1,00	-9,00
Concern about safety of farm residents	Alternative 3	Planning	-1	3	1	5	4	5	-16,25	-1	3	1	4	4	5	-15	1	2	2	1,33	-20,00
Visual Impact from exploration drilling activities and dust	Alternative 3	Planning	-1	2	2	2	2	4	-8	-1	1	2	2	2	2	-3,5	1	1	1	1,00	-3,50
Noise Various site preparation activities – clearing vegetation, digging trenches, installation of laterals and pipelines, development of infrastructure, rehabilitation	Alternative 3	Planning	-1	2	2	3	1	3	-6	-1	2	2	2	1	2	-3,5	1	1	1	1,00	-3,50
Fugitive emissions (Dust) from exorption drilling	Alternative 3	Planning	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Greenhouse gas emissions from vegetation clearance for plant and well/ borehole areas	Alternative 3	Construction	-1	3	1	1	2	3	-5,25	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from vegetation clearance for plant and well/ borehole areas	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from vegetation clearance for pipeline routes	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from vegetation clearance for pipeline routes	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from top soil and sub-soil management for plant and well/borehole areas	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from top soil and sub-soil management for plant and well/borehole areas	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from top soil and sub-soil management for pipeline	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50

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Fugitive emissions (dust) from top soil and sub-soil management for pipeline	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Fugitive emissions (dust) from drilling of wells/boreholes	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Odour impacts from drilling of wells/boreholes	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Fugitive emissions (dust) from pipeline construction (trenching, stringing, and laying, etc.)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Health impacts from general construction earthworks (excavation, back-filling, etc.)	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from general construction earthworks (excavation, back-filling, etc.)	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from general construction earthworks (excavation, back-filling, etc.)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Fugitive emissions (dust) from bulk services construction (water and power supply)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Greenhouse gas emissions from stormwater management	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from stormwater management	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Greenhouse gas emissions from movement of trucks and other vehicles	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	1	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from movement of trucks and other vehicles	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Health impacts from the operation of heavy machinery	Alternative 3	Construction	-1	1	1	3	2	3	-5,25	-1	1	1	2	2	3	-4,5	2	1	1	1,17	-5,25
Fugitive emissions (dust) from the operation of heavy machinery	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Greenhouse gas emissions from the operation of heavy machinery	Alternative 3	Construction	-1	1	1	1	2	3	-3,75	-1	1	1	1	2	3	-3,75	1	1	1	1,00	-3,75
Fugitive emissions (dust) from the management of material stockpiles (gravel, aggregate, etc.)	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	1	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from access road construction	Alternative 3	Construction	-1	2	1	1	2	3	-4,5	-1	2	1	2	2	3	-5,25	1	1	1	1,00	-5,25
Fugitive emissions (dust) from access road construction	Alternative 3	Construction	-1	2	1	2	2	3	-5,25	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Greenhouse gas emissions from road upgrades (culverts, lanes, bridges)	Alternative 3	Construction	-1	1	1	1	2	3	-3,75	-1	1	1	2	2	3	-4,5	1	1	1	1,00	-4,50
Fugitive emissions (dust) from road upgrades (culverts, lanes, bridges)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	2	2	3	-4,5	2	1	1	1,17	-5,25
Greenhouse gas emissions from dust suppression efforts	Alternative 3	Construction	-1	1	1	1	2	3	-3,75	-1	1	1	1	2	3	-3,75	1	1	1	1,00	-3,75
Health impacts from fuel storage and refuelling	Alternative 3	Construction	-1	1	1	3	2	3	-5,25	-1	1	1	2	2	3	-4,5	2	1	1	1,17	-5,25

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Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Health impacts from refuelling along pipeline	Alternative 3	Construction	-1	1	1	3	2	3	-5,25	-1	1	1	2	2	3	-4,5	2	1	1	1,17	-5,25
Fugitive emissions (dust) from the commissioning of infrastructure (pipe testing, hydro-testing, etc.)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Fugitive emissions (dust) from the decommissioning of construction infrastructure and rehabilitation (removal of temporary structures, topsoil replacement, etc.)	Alternative 3	Construction	-1	1	1	2	2	3	-4,5	-1	1	1	1	2	3	-3,75	2	1	1	1,17	-4,38
Loss / destruction of natural habitat	Alternative 3	Construction	-1	1	5	3	3	4	-12	-1	1	4	2	2	2	-4,5	1	1	3	1,33	-6,00
Habitat fragmentation and edge effects	Alternative 3	Construction	-1	2	3	2	3	2	-5	-1	2	3	1	2	1	-2	1	1	3	1,33	-2,67
Displacement of faunal species	Alternative 3	Construction	-1	2	1	2	3	2	-4	-1	2	1	1	2	1	-1,5	1	1	1	1,00	-1,50
Blockage of seasonal and dispersal movements	Alternative 3	Construction	-1	2	1	1	2	2	-3	-1	2	1	1	2	1	-1,5	1	1	1	1,00	-1,50
Flora direct and indirect mortality	Alternative 3	Construction	-1	1	3	1	2	5	-8,75	-1	1	1	1	2	1	-1,25	1	1	2	1,17	-1,46
Fauna direct and indirect mortality	Alternative 3	Construction	-1	2	4	2	2	2	-5	-1	1	2	2	2	1	-1,75	1	1	2	1,17	-2,04
Pollution of habitats	Alternative 3	Construction	-1	3	4	3	3	3	-9,75	-1	1	1	1	1	1	-1	1	1	3	1,33	-1,33
Loss of watercourse habitat	Alternative 3	Construction	-1	1	5	5	4	5	-18,75	-1	1	4	4	3	3	-9	1	1	1	1,00	-9,00
Disruption of aquatic communities at identified pipeline/trunkline crossings and proposed new wells	Alternative 3	Construction	-1	1	5	5	4	5	-18,75	-1	1	2	3	3	3	-6,75	1	1	1	1,00	-6,75
Watercourse erosion at pipeline/trunkline crossings and proposed new wells	Alternative 3	Construction	-1	1	4	4	4	4	-13	-1	1	2	2	2	3	-5,25	1	1	1	1,00	-5,25
Watercourse erosion at Compressor HDR1 and Helium Plant Alternative 1	Alternative 1	Construction	-1	1	3	3	3	3	-7,5	-1	1	2	2	2	2	-3,5	1	1	1	1,00	-3,50
Watercourse erosion at Compressor ST23	Alternative 3	Construction	-1	1	4	4	4	4	-13	-1	1	2	2	3	3	-6	1	1	1	1,00	-6,00
Watercourse erosion at Sibanye Compressor and Helium Plant Alternative 2	Alternative 2	Construction	-1	1	2	2	2	2	-3,5	-1	1	1	1	2	1	-1,25	1	1	1	1,00	-1,25
Decrease in surface water quality in watercourses along pipeline/ trunkline alignments, and at existing and proposed new wells	Alternative 3	Construction	-1	2	4	5	4	5	-18,75	-1	1	3	3	3	3	-7,5	1	1	1	1,00	-7,50
Decrease in surface water quality quality in watercourses around Compressor HDR1 and Helium Plant Alternative 1	Alternative 1	Construction	-1	2	3	3	3	3	-8,25	-1	1	3	2	3	2	-4,5	1	1	1	1,00	-4,50
Decrease in surface water quality in watercourses around Compressor ST23	Alternative 3	Construction	-1	2	3	4	3	5	-15	-1	1	2	3	3	4	-9	1	1	1	1,00	-9,00
Decrease in surface water quality in watercourses around Sibanye Compressor and Helium Plant Alternative 2	Alternative 2	Construction	-1	2	4	3	4	4	-13	-1	1	4	2	4	3	-8,25	1	1	1	1,00	-8,25
Alternative land-use	Alternative 3	Construction	-1	1	2	1	2	5	-7,5	-1	1	2	1	2	5	-7,5	1	2	3	1,50	-11,25
Black economic transformation	Alternative 3	Construction	1	3	2	3	2	4	10	1	3	2	3	2	4	10	3	2	1	1,50	15,00
Country and industry competitiveness	Alternative 3	Construction	1	4	2	4	5	4	15	1	4	2	4	5	4	15	2	3	1	1,50	22,50
Economic development per capita	Alternative 3	Construction	1	3	2	1	1	4	7	1	3	2	1	1	4	7	3	2	1	1,50	10,50
Employment impacts	Alternative 3	Construction	1	4	2	1	1	4	8	1	4	2	1	1	4	8	2	2	1	1,33	10,67

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Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative Impact	Irreplaceable loss	Priority Factor	Final score
Fiscal income	Alternative 3	Construction	1	5	1	3	1	4	10	1	5	1	3	1	4	10	1	1	1	1,00	10,00
Forex savings	Alternative 3	Construction	-1	5	1	1	1	3	-6	-1	5	1	1	1	3	-6	1	2	3	1,50	-9,00
GDP impact	Alternative 3	Construction	1	4	2	3	1	4	10	1	4	2	3	1	4	10	2	2	1	1,33	13,33
Need and desirability	Alternative 3	Construction	1	4	2	5	1	4	12	1	4	2	5	1	4	12	2	2	2	1,50	18,00
Contamination of alluvial and sand aquifers at HP1	Alternative 1	Construction	-1	2	1	1	3	4	-7	-1	1	1	2	3	2	-3,5	2	2	2	1,50	-5,25
Contamination of alluvial and sand aquifers at HP2	Alternative 2	Construction	-1	2	1	1	3	4	-7	-1	1	1	2	4	2	-4	2	3	2	1,67	-6,67
Reducing groundwater available to existing users	Alternative 3	Construction	-1	3	1	3	3	3	-7,5	-1	3	1	2	3	2	-4,5	2	3	2	1,67	-7,50
Stray gas migration affecting groundwater quality	Alternative 3	Construction	-1	3	1	4	3	3	-8,25	-1	2	1	2	3	2	-4	2	3	3	1,83	-7,33
Disturbance/Destruction of Cemeteries at TET 1	Alternative 3	Construction	-1	5	3	5	4	3	-12,75	-1	5	3	4	3	2	-7,5	1	1	2	1,17	-8,75
Disturbance/Destruction of Cemeteries at TET 8	Alternative 3	Construction	-1	5	3	5	4	3	-12,75	-1	5	3	4	3	2	-7,5	1	1	2	1,17	-8,75
Disturbance/Destruction of Historic Structures at TET 2	Alternative 3	Construction	-1	3	5	3	4	4	-15	-1	3	5	2	3	3	-9,75	1	1	2	1,17	-11,38
Disturbance/Destruction of Historic Structures at and TET 3	Alternative 3	Construction	-1	3	5	3	4	4	-15	-1	3	5	2	3	3	-9,75	1	1	2	1,17	-11,38
Disturbance/Destruction of Possible Graves at TET 4	Alternative 3	Construction	-1	4	5	4	5	3	-13,5	-1	4	5	3	4	2	-8	1	1	2	1,17	-9,33
Disturbance/Destruction of Possible Graves at TET 5	Alternative 3	Construction	-1	4	5	4	5	3	-13,5	-1	4	5	3	4	2	-8	1	1	2	1,17	-9,33
Disturbance / Destruction of cemeteries at TET 7	Alternative 3	Construction	-1	5	5	5	5	4	-20	-1	5	3	4	4	2	-8	1	1	2	1,17	-9,33
Disturbance / Destruction of cemeteries at TET 11	Alternative 3	Construction	-1	5	5	5	5	4	-20	-1	5	3	4	4	2	-8	1	1	2	1,17	-9,33
Disturbance / Destruction of cemeteries at TET 15	Alternative 3	Construction	-1	5	5	5	5	4	-20	-1	5	3	4	4	2	-8	1	1	2	1,17	-9,33
Disturbance / Destruction of cemeteries at TET 16	Alternative 3	Construction	-1	5	5	5	5	4	-20	-1	5	3	4	4	2	-8	1	1	2	1,17	-9,33
Disturbance / Destruction of cemeteries at TET 6	Alternative 3	Construction	-1	5	5	5	5	4	-20	-1	5	3	4	4	2	-8	1	1	2	1,17	-9,33
Disturbance/Destruction of the Historic Structures at TET 9	Alternative 3	Construction	-1	3	3	3	3	4	-12	-1	3	3	2	2	3	-7,5	1	1	2	1,17	-8,75
Disturbance/Destruction of the Historic Structures at TET 10	Alternative 3	Construction	-1	3	3	3	3	4	-12	-1	3	3	2	2	3	-7,5	1	1	2	1,17	-8,75
Disturbance/Destruction of the Historic Structures at TET 18	Alternative 3	Construction	-1	3	3	3	3	4	-12	-1	3	3	2	2	3	-7,5	1	1	2	1,17	-8,75
Disturbance/Destruction of Cemeteries at TET 11	Alternative 3	Construction	-1	5	5	5	5	3	-15	-1	5	3	4	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Cemeteries at TET 19	Alternative 3	Construction	-1	5	5	5	5	3	-15	-1	5	3	4	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Cemeteries at TET 20	Alternative 3	Construction	-1	5	5	5	5	3	-15	-1	5	3	4	4	1	-4	1	1	2	1,17	-4,67

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Disturbance/Destruction of Cemeteries at TET 21	Alternative 3	Construction	-1	5	5	5	5	3	-15	-1	5	3	4	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Cemeteries at TET 22	Alternative 3	Construction	-1	5	5	5	5	3	-15	-1	5	3	4	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Possible Graves at TET 12	Alternative 3	Construction	-1	4	5	4	5	2	-9	-1	4	5	3	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Possible Graves at TET 13	Alternative 3	Construction	-1	4	5	4	5	2	-9	-1	4	5	3	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Possible Graves at TET 14	Alternative 3	Construction	-1	4	5	4	5	2	-9	-1	4	5	3	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Possible Graves at TET 25	Alternative 3	Construction	-1	4	5	4	5	2	-9	-1	4	5	3	4	1	-4	1	1	2	1,17	-4,67
Disturbance/Destruction of Stone Age sites at TET 23	Alternative 3	Construction	-1	5	5	5	4	3	-14,25	-1	5	3	4	3	1	-3,75	1	1	2	1,17	-4,38
Disturbance/Destruction of Stone Age sites at TET 24	Alternative 3	Construction	-1	5	5	5	4	3	-14,25	-1	5	3	4	3	1	-3,75	1	1	2	1,17	-4,38
Disturbance/ Destruction of Sections of the Battle of Zand River	Alternative 3	Construction	-1	5	3	3	3	3	-10,5	-1	5	3	2	3	2	-6,5	1	1	2	1,17	-7,58
Disturbance/ Destruction of Tangible Remains of the Old Diamond Mine at Welgegund	Alternative 3	Construction	-1	5	3	3	3	3	-10,5	-1	5	3	2	3	2	-6,5	1	1	2	1,17	-7,58
Disturbance/ Destruction of Tangible Remains of the Old Diamond Mine at Welgegund	Alternative 3	Construction	-1	3	5	5	5	5	-22,5	-1	2	5	3	5	3	-11,25	1	2	3	1,50	-16,88
Noise fro various site preparation activities, daytime	Alternative 2	Construction	-1	1	2	5	1	4	-9	-1	1	2	4	1	4	-8	2	1	1	1,17	-9,33
Noise from various site preparation activities, night-time	Alternative 2	Construction	-1	1	2	5	1	5	-11,25	-1	1	2	4	1	4	-8	2	1	1	1,17	-9,33
Noise from drilling activities, daytime	Alternative 2	Construction	-1	1	2	1	1	1	-1,25	-1	1	2	1	1	1	-1,25	2	1	1	1,17	-1,46
Noise from drilling activities, night-time	Alternative 2	Construction	-1	1	2	5	1	5	-11,25	-1	1	2	4	1	4	-8	2	1	1	1,17	-9,33
Noise from transport of equipment and material, daytime	Alternative 2	Construction	-1	3	2	1	1	1	-1,75	-1	3	2	1	1	1	-1,75	2	1	1	1,17	-2,04
Noise from transporting of equipment and material, daytime	Alternative 3	Construction	-1	3	2	1	1	1	-1,75	-1	3	2	1	1	1	-1,75	2	1	1	1,17	-2,04
Secondary economic opportunities e.g. transport, domestic services, catering, etc.	Alternative 3	Construction	1	4	2	2	1	4	9	1	4	2	3	1	4	10	1	1	1	1,00	10,00
Potential to use local service providers and contribute directly to local economy	Alternative 3	Construction	1	4	2	2	1	4	9	1	4	2	3	1	4	10	1	1	1	1,00	10,00
Potential opportunity for education, skills development, and training	Alternative 3	Construction	1	4	2	2	1	4	9	1	4	2	3	1	4	10	1	1	1	1,00	10,00
Secondary economic opportunities e.g. transport, domestic services, catering etc.	Alternative 3	Construction	1	4	2	3	1	4	10	1	4	2	4	1	5	13,75	1	2	1	1,17	16,04
Influx of people looking for economic opportunities	Alternative 3	Construction	-1	4	2	4	5	4	-15	-1	4	2	4	4	4	-14	1	3	3	1,67	-23,33
Temporary growth in local economy	Alternative 3	Construction	1	4	2	4	2	4	12	1	4	2	5	2	5	16,25	1	3	1	1,33	21,67
Temporary low, semi-skilled or skilled employment opportunities available	Alternative 3	Construction	1	4	2	4	1	4	11	1	4	2	5	1	5	15	1	3	1	1,33	20,00
Loss of farm labour to the project	Alternative 3	Construction	-1	4	2	4	3	5	-16,25	-1	4	2	3	3	4	-12	1	2	2	1,33	-16,00

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Introduction of invasive alien species that can potentially distribute outside the project affected area and pose a risk to farming activities	Alternative 3	Construction	-1	2	2	4	3	4	-11	-1	2	2	3	3	4	-10	1	1	1	1,00	-10,00
Decrease in quality and availability of ground and surface water impacting on livelihoods, health and quality of life	Alternative 3	Construction	-1	3	2	5	3	4	-13	-1	3	2	4	3	4	-12	1	2	2	1,33	-16,00
Damage to arable land resulting in impacts on existing livelihoods e.g. lower crop yields, financial losses	Alternative 3	Construction	-1	2	2	4	4	4	-12	-1	2	2	3	4	4	-11	1	2	2	1,33	-14,67
Loss of ecosystem services	Alternative 3	Construction	-1	3	4	4	3	4	-14	-1	2	4	3	3	4	-12	1	3	3	1,67	-20,00
Damage to existing infrastructure, including road infrastructure	Alternative 3	Construction	-1	3	2	4	2	5	-13,75	-1	3	2	3	2	4	-10	1	1	1	1,00	-10,00
Increase in opportunistic crimes	Alternative 3	Construction	-1	3	2	4	3	5	-15	-1	3	2	3	3	4	-11	1	2	2	1,33	-14,67
Potential for conflict between local residents and newcomers about economic opportunities	Alternative 3	Construction	-1	4	2	5	5	5	-20	-1	4	2	4	5	4	-15	1	3	3	1,67	-25,00
High risks of health and safety incidents amongst construction workers if protocols are not observed.	Alternative 3	Construction	-1	2	2	4	3	4	-11	-1	2	2	3	3	4	-10	1	1	1	1,00	-10,00
Security risks due to potential for theft	Alternative 3	Construction	-1	3	2	4	3	5	-15	-1	3	2	3	3	4	-11	1	2	1	1,17	-12,83
Fire and explosion hazard is hazardous substances is not managed properly	Alternative 3	Construction	-1	2	2	4	3	4	-11	-1	2	2	3	3	4	-10	1	1	1	1,00	-10,00
Potential nuisance factor associated with odours and visual aspects	Alternative 3	Construction	-1	3	2	3	2	4	-10	-1	3	2	2	2	4	-9	1	1	1	1,00	-9,00
Disruption of watercourse hydrology	Alternative 3	Construction	-1	1	5	5	4	5	-18,75	-1	1	3	3	3	3	-7,5	1	1	3	1,33	-10,00
Visual impact from new stationary/ plant infrastructure vegetation clearance, earthworks, stockpiling, and dust:	Alternative 3	Construction	-1	2	3	4	4	3	-9,75	-1	1	2	2	2	3	-5,25	2	2	1	1,33	-7,00
Visual impact from pipeline infrastructure vegetation clearance, earthworks, stockpiling, and dust	Alternative 3	Construction	-1	2	3	4	4	3	-9,75	-1	2	2	2	3	3	-6,75	2	2	1	1,33	-9,00
Visual impact from well infrastructure vegetation clearing, drilling, stockpiles, and dust	Alternative 3	Construction	-1	2	3	3	3	3	-8,25	-1	1	2	2	2	3	-5,25	2	1	1	1,17	-6,13
Visual impact from security lights at night	Alternative 3	Construction	-1	3	3	3	2	3	-8,25	-1	2	2	2	2	2	-4	1	1	1	1,00	-4,00
Visual impact from dismantled temporary infrastructure, material stockpiles, and dust	Alternative 3	Construction	-1	2	2	4	3	3	-8,25	-1	1	2	2	2	2	-3,5	1	1	1	1,00	-3,50
Impacts on existing services and infrastructure	Alternative 3	Construction	-1	3	2	3	3	4	-11	-1	3	2	2	3	4	-10	2	2	1	1,33	-13,33
Loss/change of sense of place due to visual impacts and project activities	Alternative 3	Construction	-1	3	2	3	5	5	-16,25	-1	3	2	2	5	5	-15	3	3	2	1,83	-27,50
Increase in social licence to operate due to management of nuisance impact	Alternative 3	Construction	1	3	2	2	1	3	6	1	3	2	3	1	4	9	3	3	1	1,67	15,00
Increase in social pathologies such as prostitution, sexually transmitted diseases, teenage pregnancies and alcohol and substance abuse	Alternative 3	Construction	-1	4	2	3	5	4	-14	-1	4	2	2	5	4	-13	2	2	2	1,50	-19,50
Establishment of informal settlements close to the project area	Both Alternatives	Construction	-1	3	5	4	4	3	-12	-1	3	5	3	4	3	-11,25	3	2	3	1,83	-20,63

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Safety aspects associated with open trenches (people and animals)	Both Alternatives	Construction	-1	2	1	3	2	4	-8	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Loss of watercourse habitat at Compressor HDR1 and Helium Plant Alternative 1	Alternative 1	Construction	-1	1	1	1	1	1	-1	-1	1	1	1	1	1	-1	1	1	1	1,00	-1,00
Loss of watercourse habitat at Compressor ST23	Alternative 3	Construction	-1	1	2	2	2	5	-8,75	-1	1	2	2	2	5	-8,75	1	1	1	1,00	-8,75
Loss of watercourse habitat at Sibanye Compressor and Helium Plant Alternative 2	Alternative 2	Construction	-1	1	5	5	5	5	-20	-1	1	1	1	1	1	-1	1	1	1	1,00	-1,00
Potential health risks to people and animals if waste (including sewage) is not managed properly (pests e.g. rodents)	Alternative 3	Construction	-1	2	2	3	2	3	-6,75	-1	2	2	2	2	3	-6	2	1	1	1,17	-7,00
Safety and nuisance impacts where trench has to be opened to repair faults	Alternative 3	Construction	-1	2	1	3	2	4	-8	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Loss of agricultural land	Alternative 3	Construction	-1	2	3	2	2	4	-9	-1	1	2	1	2	1	-1,5	2	1	1	1,17	-1,75
Increase sediment loads	Alternative 3	Construction	-1	1	2	1	2	4	-6	-1	1	1	1	2	2	-2,5	1	2	1	1,17	-2,92
Spillage of oils, fuel and chemicals	Alternative 3	Construction	-1	1	2	2	2	4	-7	-1	1	1	1	2	2	-2,5	1	2	1	1,17	-2,92
Alterations of the river banks and river bed	Alternative 3	Construction	-1	2	2	2	3	3	-6,75	-1	2	2	1	2	2	-3,5	3	2	2	1,67	-5,83
Health impacts from general waste management	Alternative 3	Operation	-1	2	1	2	2	3	-5,25	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Fugitive emissions (dust) from general waste management	Alternative 3	Operation	-1	1	2	2	2	4	-7	-1	1	2	1	2	4	-6	2	1	1	1,17	-7,00
Health impacts from the management of hazardous waste	Alternative 3	Operation	-1	1	3	2	3	4	-9	-1	1	3	1	3	4	-8	2	1	1	1,17	-9,33
Fugitive emissions (dust) from the management of hazardous waste	Alternative 3	Operation	-1	1	2	2	2	4	-7	-1	1	2	1	2	4	-6	2	1	1	1,17	-7,00
Odour from well operations	Alternative 3	Operation	-1	2	2	2	2	4	-8	-1	2	2	2	2	4	-8	2	1	1	1,17	-9,33
Health impacts from venting and flaring	Alternative 3	Operation	-1	2	2	2	2	4	-8	-1	2	2	2	2	4	-8	2	1	1	1,17	-9,33
Greenhouse gas emissions from venting	Alternative 3	Operation	-1	2	4	1	2	4	-9	-1	2	4	1	2	4	-9	1	1	1	1,00	-9,00
Greenhouse gas emissions from the movement of trucks and other vehicles	Alternative 3	Operation	-1	1	4	1	2	4	-8	-1	1	4	1	2	4	-8	1	1	1	1,00	-8,00
Fugitive emissions (dust) from the movement of trucks and other vehicles	Alternative 3	Operation	-1	2	2	2	2	4	-8	-1	2	2	1	2	4	-7	2	1	1	1,17	-8,17
Greenhouse emissions from gas processing and operation of heavy machinery	Alternative 3	Operation	-1	2	3	1	2	4	-8	-1	2	3	1	2	4	-8	2	1	1	1,17	-9,33
Disruption of watercourse hydrology along proposed pipeline/trunkline alignments, and at proposed new wells	Alternative 3	Operation	-1	1	5	5	4	5	-18,75	-1	1	3	3	3	3	-7,5	1	1	3	1,33	-10,00
Watercourse erosion along pipeline and trunkline alignments, as well as proposed new wells	Alternative 3	Operation	-1	1	4	4	4	4	-13	-1	1	2	2	2	3	-5,25	1	1	1	1,00	-5,25
Watercourse erosion at existing wells, around Compressor ST23, and around Sibanye Compressor and Helium Plant Alternative 2, as well as around Compressor HDR1 and Helium Plant Alternative 1	Alternative 3	Operation	-1	1	2	2	2	2	-3,5	-1	1	2	1	2	2	-3	1	1	1	1,00	-3,00
Decrease in surface water quality at Compressor HDR1 and Helium Plant Alternative 1	Alternative 1	Operation	-1	1	2	2	2	3	-5,25	-1	1	2	1	2	2	-3	1	1	1	1,00	-3,00

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Decrease in surface water quality at Compressor ST23 (edge effects)	Alternative 3	Operation	-1	2	3	4	3	5	-15	-1	1	3	3	3	4	-10	1	1	1	1,00	-10,00
Decrease in surface water quality at Sibanye Compressor and Helium Plant Alternative 2	Alternative 2	Operation	-1	2	3	3	3	4	-11	-1	1	3	3	3	3	-7,5	1	1	3	1,33	-10,00
Encroachment of alien plant species into watercourses around Compressor HDR1 and Helium Plant Alternative 1 and around Sibanye Compressor and Helium Plant Alternative 2	Alternative 3	Operation	-1	1	1	2	2	2	-3	-1	1	1	1	2	2	-2,5	1	1	1	1,00	-2,50
Encroachment of alien plant species into watercourse crossings along pipeline/ trunkline alignments, at existing and proposed new wells and around Compressor ST23 (edge effects)	Alternative 2	Operation	-1	2	4	4	3	4	-13	-1	1	3	2	2	2	-4	1	1	1	1,00	-4,00
Alternative land-use	Alternative 3	Operation	-1	1	4	1	2	5	-10	-1	1	4	1	2	5	-10	1	2	3	1,50	-15,00
Black economic transformation	Alternative 3	Operation	1	3	4	3	2	4	12	1	3	4	3	2	4	12	3	2	1	1,50	18,00
Country and industry competitiveness	Alternative 3	Operation	1	5	4	4	5	4	18	1	5	4	4	5	4	18	2	3	1	1,50	27,00
Economic development per capita	Alternative 3	Operation	1	3	4	1	1	4	9	1	3	4	1	1	4	9	3	2	1	1,50	13,50
Employment impacts	Alternative 3	Operation	1	4	4	1	1	4	10	1	4	4	1	1	4	10	2	2	1	1,33	13,33
Fiscal income	Alternative 3	Operation	1	5	4	3	1	4	13	1	5	4	3	1	4	13	1	1	1	1,00	13,00
Forex savings	Alternative 3	Operation	1	5	4	1	1	4	11	1	5	4	1	1	4	11	1	1	1	1,00	11,00
GDP impact	Alternative 3	Operation	1	4	4	3	1	4	12	1	4	4	3	1	4	12	2	2	1	1,33	16,00
Need and desirability	Alternative 3	Operation	1	4	4	5	1	4	14	1	4	4	5	1	4	14	2	2	2	1,50	21,00
Contamination of alluvial and sand aquifers at HP1	Alternative 1	Operation	-1	2	4	3	3	4	-12	-1	2	2	3	3	2	-5	2	2	2	1,50	-7,50
Contamination of alluvial and sand aquifers at HP2	Alternative 2	Operation	-1	2	4	2	3	4	-11	-1	2	2	2	3	2	-4,5	2	3	2	1,67	-7,50
Stray gas migration affecting groundwater quality	Alternative 3	Operation	-1	3	5	4	4	3	-12	-1	2	4	2	4	2	-6	2	3	3	1,83	-11,00
Noise from transport product from processing plant, daytime	Alternative 3	Operation	-1	3	4	1	1	1	-2,25	-1	3	4	1	1	1	-2,25	2	2	1	1,33	-3,00
Noise from transport product from processing plant, night-time	Alternative 3	Operation	-1	3	4	1	1	1	-2,25	-1	3	4	1	1	1	-2,25	2	2	1	1,33	-3,00
Noise from booster / compressor station activities, daytime	Alternative 3	Operation	-1	1	4	1	1	1	-1,75	-1	1	4	1	1	1	-1,75	2	1	1	1,17	-2,04
Noise from booster / compressor station activities, night-time	Alternative 3	Operation	-1	1	4	3	1	3	-6,75	-1	1	4	2	1	2	-4	2	1	1	1,17	-4,67
Potential to use local service providers and contribute directly to local economy	Alternative 3	Operation	1	4	3	3	1	3	8,25	1	4	3	4	1	4	12	2	2	1	1,33	16,00
Potential health risks to people and animals if waste is not managed properly (pests e.g. rodents)	Alternative 3	Operation	-1	2	3	3	2	3	-7,5	-1	2	3	2	2	3	-6,75	2	1	1	1,17	-7,88

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Impacts on livelihoods due to behaviour of contractors (leaving gates open, driving off-road, leaving garbage on the properties, lack of sanitation facilities)	Alternative 3	Operation	-1	3	3	4	3	4	-13	-1	3	3	3	3	4	-12	3	3	2	1,83	-22,00
Interference with livelihoods	Alternative 3	Operation	-1	4	3	4	3	4	-14	-1	4	3	3	2	4	-12	3	2	3	1,83	-22,00
Nuisance factor due to increase in ambient dust and noise levels	Alternative 3	Operation	-1	2	3	3	2	4	-10	-1	3	3	2	2	4	-10	2	1	1	1,17	-11,67
Interference with existing road use patterns	Alternative 3	Operation	-1	3	3	3	2	4	-11	-1	3	3	2	2	4	-10	2	1	1	1,17	-11,67
Safety of all road users compromised as a result of access points on the R30	Alternative 3	Operation	-1	3	3	4	3	4	-13	-1	3	3	3	3	4	-12	3	2	3	1,83	-22,00
Loss/change of sense of place due to visual impacts and project activities	Alternative 3	Operation	-1	3	3	3	5	5	-17,5	-1	3	3	2	5	5	-16,25	3	3	2	1,83	-29,79
Safety and security of local residents due to movement of people across the servitude, especially at night time	Alternative 3	Operation	-1	4	3	5	3	5	-18,75	-1	4	3	4	3	5	-17,5	3	3	3	2,00	-35,00
Public perceptions about safety associated with gas production	Alternative 3	Operation	-1	3	2	2	2	4	-9	-1	3	2	2	2	3	-6,75	2	1	1	1,17	-7,88
Increased soil erosion hazard	Alternative 3	Operation	-1	2	4	3	3	2	-6	-1	1	2	1	3	2	-3,5	2	2	2	1,50	-5,25
Pollution of soil profile due to leakage/spillage	Alternative 3	Operation	-1	2	4	2	3	2	-5,5	-1	1	2	1	3	2	-3,5	2	2	2	1,50	-5,25
Contamination from leakage and spillage	Alternative 3	Operation	-1	3	3	3	3	3	-9	-1	2	2	1	2	2	-3,5	3	2	2	1,67	-5,83
Alien plants encroachment into watercourses	Alternative 3	Operation	-1	3	4	3	3	3	-9,75	-1	2	2	1	3	2	-4	1	2	2	1,33	-5,33
Displacement of faunal species	Alternative 3	Operation	-1	1	4	1	1	2	-3,5	-1	1	4	1	1	1	-1,75	1	1	1	1,00	-1,75
Blockage of seasonal and dispersal movements	Alternative 3	Operation	-1	2	4	1	1	2	-4	-1	2	4	1	1	1	-2	1	1	1	1,00	-2,00
Pollution of habitats	Alternative 3	Operation	-1	3	4	3	3	3	-9,75	-1	1	1	1	1	1	-1	1	1	3	1,33	-1,33
Pollution of surface water resources/decreased water quality resulting in impacts on livelihoods and nuisance impacts	Alternative 3	Operation	-1	3	4	5	4	4	-16	-1	3	4	4	4	3	-11,25	1	3	3	1,67	-18,75
Distribution of invasive alien species outside the project area can impact on existing land uses and be an additional financial burden on land owners	Alternative 3	Operation	-1	3	4	3	3	4	-13	-1	3	4	2	3	3	-9	1	2	1	1,17	-10,50
Safety of all road users (vehicle and pedestrians) compromised as a result of additional road users	Alternative 3	Operation	-1	3	4	3	2	5	-15	-1	3	4	2	2	3	-8,25	1	1	1	1,00	-8,25
Increase in traffic causing a nuisance to other road users	Alternative 3	Operation	-1	3	4	3	1	5	-13,75	-1	3	4	2	1	3	-7,5	1	1	1	1,00	-7,50
Damage to road infrastructure	Alternative 3	Operation	-1	4	4	3	3	5	-17,5	-1	4	4	2	3	3	-9,75	1	2	1	1,17	-11,38
Potential nuisance factor associated with odours and visual aspects (lights, structures)	Alternative 3	Operation	-1	2	4	3	2	4	-11	-1	2	4	2	2	3	-7,5	1	1	1	1,00	-7,50

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Negative impact on social licence to operate if necessary permits are not in place	Alternative 3	Operation	-1	3	4	3	2	5	-15	-1	3	4	2	2	3	-8,25	1	1	1	1,00	-8,25
Potential high severity of health and safety incidents if it occurs	Alternative 3	Operation	-1	2	4	5	5	3	-12	-1	2	4	5	5	3	-12	1	2	3	1,50	-18,00
Fire and explosion hazard associated with flaring and hazardous substances	Alternative 3	Operation	-1	2	4	5	4	4	-15	-1	2	4	4	3	3	-9,75	1	2	3	1,50	-14,63
Visual impact from new infrastructure (wells and plant)	Alternative 3	Operation	-1	3	4	4	3	3	-10,5	-1	2	4	3	3	3	-9	1	1	1	1,00	-9,00
Visual impact from security lights at night	Alternative 3	Operation	-1	3	4	3	2	3	-9	-1	2	4	3	2	2	-5,5	1	1	1	1,00	-5,50
Fugitive emissions (dust) from the removal of waste and recycling of recyclable / reclaimable waste	Alternative 3	Decommissioning	-1	2	1	2	2	3	-5,25	-1	2	1	2	2	3	-5,25	2	1	1	1,17	-6,13
Alternative land-use	Alternative 3	Decommissioning	1	1	1	1	2	5	6,25	1	1	1	1	2	5	6,25	1	2	1	1,17	7,29
Black economic transformation	Alternative 3	Decommissioning	-1	3	5	3	5	4	-16	-1	3	5	3	5	4	-16	3	2	3	1,83	-29,33
Country and industry competitiveness	Alternative 3	Decommissioning	-1	5	5	4	5	4	-19	-1	5	5	4	5	4	-19	2	3	3	1,83	-34,83
Economic development per capita	Alternative 3	Decommissioning	-1	3	2	1	1	4	-7	-1	3	2	1	1	4	-7	3	2	3	1,83	-12,83
Employment impacts	Alternative 3	Decommissioning	-1	4	2	1	1	4	-8	-1	4	2	1	1	4	-8	3	3	3	2,00	-16,00
Fiscal income	Alternative 3	Decommissioning	-1	4	5	3	1	5	-16,25	-1	4	5	3	1	5	-16,25	1	1	3	1,33	-21,67
Forex savings	Alternative 3	Decommissioning	-1	4	5	1	1	5	-13,75	-1	4	5	1	1	5	-13,75	3	3	3	2,00	-27,50
GDP impact	Alternative 3	Decommissioning	-1	4	2	3	1	4	-10	-1	4	2	3	1	4	-10	3	3	3	2,00	-20,00
Need and desirability	Alternative 3	Decommissioning	-1	4	2	5	1	4	-12	-1	4	2	5	1	4	-12	2	2	2	1,50	-18,00
Contamination of alluvial and sand aquifers	Alternative 1	Decommissioning	-1	2	4	3	3	4	-12	-1	1	2	2	3	2	-4	2	2	2	1,50	-6,00
Contamination of alluvial and sand aquifers	Alternative 2	Decommissioning	-1	2	4	2	3	4	-11	-1	1	2	2	3	2	-4	2	3	2	1,67	-6,67
Stray gas migration affecting groundwater quality	Alternative 3	Decommissioning	-1	3	1	4	4	3	-9	-1	2	1	2	4	2	-4,5	2	3	3	1,83	-8,25
Potential to use local service providers and contribute directly to local economy	Alternative 3	Decommissioning	1	4	2	3	1	3	7,5	1	4	2	4	1	4	11	2	2	1	1,33	14,67
Interruption in services	Alternative 3	Decommissioning	-1	3	1	4	2	4	-10	-1	2	1	3	1	3	-5,25	2	1	1	1,17	-6,13
Interference with existing land uses	Alternative 3	Decommissioning	-1	4	2	4	3	4	-13	-1	4	2	3	2	4	-11	3	2	3	1,83	-20,17
Impacts on existing services and infrastructure	Alternative 3	Decommissioning	-1	4	2	4	3	4	-13	-1	4	2	3	2	4	-11	3	2	3	1,83	-20,17
Re-instate access routes give access to land/infrastructure that was cut of by the project	Alternative 3	Decommissioning	1	2	2	3	2	3	6,75	1	2	2	4	2	4	10	2	1	1	1,17	11,67
Increase in social licence to operate due to management of nuisance impacts	Alternative 3	Decommissioning	1	3	2	2	1	3	6	1	3	2	3	1	4	9	3	3	1	1,67	15,00
Impacts on safety and security of local residents due to presence of unfamiliar people in the area	Alternative 3	Decommissioning	-1	4	2	3	5	5	-17,5	-1	4	2	4	3	5	-16,25	3	3	3	2,00	-32,50

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
Public perceptions about the impact of decommissioning on the sense of place	Alternative 3	Decommissioning	1	3	2	2	2	2	4,5	1	3	2	3	2	2	5	2	1	1	1,17	5,83
Contamination from leakage and spillage	Alternative 3	Decommissioning	-1	3	3	3	3	3	-9	-1	2	2	1	2	2	-3,5	3	2	2	1,67	-5,83
Loss of jobs and economic opportunities	Alternative 3	Decommissioning	-1	4	2	5	5	5	-20	-1	4	2	4	5	3	-11,25	1	2	2	1,33	-15,00
Temporary unskilled, semi-skilled and skilled employment opportunities available	Alternative 3	Decommissioning	1	3	2	4	1	5	12,5	1	3	2	5	1	3	8,25	1	1	1	1,00	8,25
Environmental aspects impacting negatively on existing livelihoods	Alternative 3	Decommissioning	-1	3	3	4	3	5	-16,25	-1	3	3	3	3	3	-9	1	2	3	1,50	-13,50
Nuisance factor due to increase in ambient dust and noise levels	Alternative 3	Decommissioning	-1	2	2	3	2	5	-11,25	-1	2	2	2	2	3	-6	1	1	1	1,00	-6,00
Visual impact from dismantled well and plant infrastructure, stockpiles, and dust	Alternative 3	Decommissioning	-1	2	2	3	3	3	-7,5	-1	1	2	2	3	3	-6	1	1	1	1,00	-6,00
Visual impact from dismantled pipeline infrastructure, stockpiles, and dust	Alternative 3	Decommissioning	-1	2	2	3	3	3	-7,5	-1	1	2	2	3	3	-6	1	1	1	1,00	-6,00
Alternative land-use	Alternative 3	Rehab and closure	1	1	5	1	2	5	11,25	1	1	5	1	2	5	11,25	1	2	1	1,17	13,13
Black economic transformation	Alternative 3	Rehab and closure	-1	3	5	3	5	4	-16	-1	3	5	3	5	4	-16	3	2	3	1,83	-29,33
Country and industry competitiveness	Alternative 3	Rehab and closure	-1	5	5	4	2	4	-16	-1	5	5	4	2	4	-16	2	3	3	1,83	-29,33
Economic development per capita	Alternative 3	Rehab and closure	-1	3	5	1	1	5	-12,5	-1	3	5	1	1	5	-12,5	3	2	3	1,83	-22,92
Employment impacts	Alternative 3	Rehab and closure	-1	4	5	1	1	5	-13,75	-1	4	5	1	1	5	-13,75	3	3	3	2,00	-27,50
Fiscal income	Alternative 3	Rehab and closure	-1	4	5	3	1	5	-16,25	-1	4	5	3	1	5	-16,25	1	1	3	1,33	-21,67
Forex savings	Alternative 3	Rehab and closure	-1	4	5	1	1	5	-13,75	-1	4	5	1	1	5	-13,75	3	3	3	2,00	-27,50
GDP impact	Alternative 3	Rehab and closure	-1	4	5	3	1	5	-16,25	-1	4	5	3	1	5	-16,25	3	3	3	2,00	-32,50
Need and desirability	Alternative 3	Rehab and closure	-1	4	5	5	1	4	-15	-1	4	5	5	1	4	-15	2	2	2	1,50	-22,50
Contamination of alluvial and sand aquifers	Alternative 1	Rehab and closure	-1	2	4	4	4	4	-14	-1	2	2	2	3	2	-4,5	2	2	2	1,50	-6,75
Contamination of alluvial and sand aquifers	Alternative 2	Rehab and closure	-1	2	4	3	4	4	-13	-1	2	2	2	4	2	-5	2	3	2	1,67	-8,33
Well casing and/or cementation failure affecting groundwater quality	Alternative 3	Rehab and closure	-1	3	5	4	5	3	-12,75	-1	2	5	3	5	2	-7,5	2	3	3	1,83	-13,75
Potential to use local service providers and contribute directly to local economy	Alternative 3	Rehab and closure	1	4	2	3	1	3	7,5	1	4	2	4	1	4	11	2	2	1	1,33	14,67
Impacts on safety and security of local residents due to presence of unfamiliar people in the area	Alternative 3	Rehab and closure	-1	4	2	3	5	5	-17,5	-1	4	2	4	3	5	-16,25	3	3	3	2,00	-32,50
Interference with existing land uses/livelihoods	Alternative 3	Rehab and closure	-1	4	2	4	3	4	-13	-1	4	2	3	2	4	-11	3	2	3	1,83	-20,17
Increase in social licence to operate due to management of nuisance impacts	Alternative 3	Rehab and closure	1	3	2	2	1	3	6	1	3	2	3	1	4	9	3	3	1	1,67	15,00
Distribution of alien invasive species outside the project area can impact on existing land uses and be an additional financial burden on land owners	Alternative 3	Rehab and closure	-1	3	2	4	3	5	-15	-1	3	2	3	3	3	-8,25	1	1	1	1,00	-8,25

IMPACT DESCRIPTION			PRE - MITIGATION							POST - MITIGATION							IMPACT PRIORITISATION				
Impact	Alternative	Phase	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Public response	Cumulative impact	Irreplaceable loss	Priority Factor	Final score
nuisance factor due to increase in ambient dust and noise levels	Alternative 3	Rehab and closure	-1	2	2	4	3	5	-13,75	-1	2	2	3	3	3	-7,5	1	1	1	1,00	-7,50
increase in social License to operate due to management of nuisance impacts	Alternative 3	Rehab and closure	1	3	2	2	2	4	9	1	3	2	3	2	3	7,5	1	1	1	1,00	7,50
nuisance factor due to increase in ambient dust and noise levels	Alternative 3	Rehab and closure	-1	2	2	4	3	5	-13,75	-1	2	2	3	3	3	-7,5	1	1	1	1,00	-7,50
increase in social License to operate due to management of nuisance impacts	Alternative 3	Rehab and closure	1	3	2	2	2	4	9	1	3	2	3	2	3	7,5	1	1	1	1,00	7,50