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Permit[1]

s226 & s228 Environmental *Protection Act 1994*
Non-Standard Environmental Authority (Mining Lease)

Permit[1] number: MIN200532307

Takes Effect From: 03-May-2007

Details

Permit Holder(s)	Name	Address
Principal Holder	Marlborough Nickel Pty Ltd	Suite 9 Level 3-320 Adelaide Street BRISBANE QLD 4001

Activity(s)	Location(s)
Mining Lease	ML5772
Mining Lease	ML5780
Mining Lease	ML7577
Mining Lease	ML80004

The anniversary date of the environmental authority is: 28 February.

The environmental authority is subject to the attached conditions of approval.

John Sherriff
Delegate
Environmental Protection Agency
04 May 2007

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service

Environmental Protection Agency
www.epa.qld.gov.au ABN 87 221 158 786

Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

CONDITIONS OF APPROVAL

Agency Interest: General

(G1) The environmental authority holder must comply with each of the Standard Environmental Conditions contained in the Code of Environmental Compliance for Exploration and Mineral Development Projects January 2001 when conducting, maintaining and rehabilitating exploration activities on those parts of mining leases not subject to active mining at the time.

(G2) The environmental authority transfer takes effect when the environmental authority holder has become the holder of the relevant mining tenements under the Mineral Resources Act 1989.

(G3) Financial assurance

Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of activities proposed under this environmental authority.

NOTE: The calculation of financial assurance for condition G2 must be in accordance with Guideline 17 and may include a performance discount. The amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: (Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required).

(G4) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

NOTE: Where progressive rehabilitation is completed and acceptable to the administering authority, progressive reductions to the amount of financial assurance will be applicable where rehabilitation has been completed in accordance with the acceptance criteria defined within this environmental authority.

(G5) Monitoring

Record, compile and keep for a minimum of five years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.

(G6) Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.

(G7) Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS 1940 - Storage and Handling of Flammable and Combustible Liquids of 1993.

(G8) Maintenance of measures, plant and equipment

The environmental authority holder must ensure:

(a) that all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed: and

(b) that such measures, plant and equipment are maintained in a proper condition; and
(c) that such measures, plant and equipment are operated in a proper manner.

(G9) Definitions

Words and phrases used throughout this EA are defined in Attachment 1 Environmental authority word definitions non-standard mining activities. Where a definition for a term used in this EA is sought and the term is not defined within this EA, the definitions in the Environmental Protection Act 1994, its Regulations and Environmental Protection Policies must be used.

Agency Interest: Air

(A1) Dust nuisance

Subject to requirement of conditions A2 and A3 the release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.

(A2) When requested by the administering authority, dust and particulate monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(A3) If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the holder is not in breach of condition A1:

(a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 Methods for sampling and analysis of ambient air - Determination of particulates - Deposited matter - Gravimetric method of 1991; and

(b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a sensitive place downwind of the operational land, when monitored in accordance with:

- Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method, when monitored in accordance with AS 3580.9.6 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM (sub) 10 high volume sampler with size-selective inlet - Gravimetric method of 1990; or

- Any alternative method of sampling PM10, which may be permitted by the `Air Quality Sampling Manual' as published from time to time by the administering authority.

NOTE: The proponent must decide which monitoring method is appropriate in accordance with condition A1 (a) or (b) or both.

(A4) If monitoring indicates exceedence of the relevant limits in condition A1, then the environmental authority holder must:

(a) address the complaint including the use of appropriate dispute resolution if required; or

(b) immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

Agency Interest: Land

(L1) Infrastructure

All infrastructure, constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post mining land owner / holder.

NOTE: This is not applicable where the landowner / holder is also the environmental authority holder.

(L2) Complete an investigation into residual voids and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in condition L5 and residual void design criteria in Attachment 2 Table L2 Residual Void design no later than four years after the commencement of mining.

Note: See Attachment for Table L2 Residual Void design.

(L3) Residual void outcome

Residual voids must comply with the following outcomes;
(a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised groundwater aquifer, other than the environmental harm constituted by the existence of the residual void itself and subject to any other condition within this environmental authority; and
(b) residual voids must comply with Attachment Table L2 Residual void design.

(L4) The holder of the environmental authority must design, construct and operate all low-hazard dams containing hazardous waste and non-hazardous dams in accordance with the criteria outlined in Appendix B of the Code of Environmental Compliance for Mining Lease Projects.

(L5) Progressive rehabilitation must commence when areas become available within the operational land.

(L6) The small unmapped remnant of endangered regional ecosystem (ERE number 11-11-21 semi-evergreen vine thicket (SEVT) on serpentinite) bordering Eastern Gully on ML8004 between points A and B on Map 1 Locations of Monitoring Points and Waste Dumps in Attachment 3 shall be protected from disturbance by any mining activities.

(L7) All areas significantly disturbed by mining activities must be rehabilitated to the final land description as defined in Attachment 2 Table L1 Final land use suitability, landform design criteria and rehabilitation approval schedule.

Note: See Attachment 1 for Table L1 Final land use suitability, landform design criteria and

rehabilitation approval schedule.

(L8) Areas which are to be progressively rehabilitated to native ecosystem must comply with the following outcomes;

(a) achievement of a self sustaining native ecosystem with species composition and distribution similar to reference sites to be defined in plan of operations; and
(b) all areas significantly disturbed by mining activities must be rehabilitated to the landform desig criteria defined in Attachment 1 Table L1 Final land use suitability, landform design criteria anc rehabilitation approval schedule; and
(c) landforms are stable and have been reshaped as close as practicable to the aspect orientatior of reference sites defined in plan of operations.

Note: See Attachment 1 Table L1 Final land use suitability, landform design criteria and rehabilitation approval schedule.

(L9) Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in Attachment 1 Table L1 Final land use suitability, landform design criteria and rehabilitation approval schedule no later than four years after the commencement of mining.

Agency Interest: Noise

(N1) Noise nuisance

Subject to requirement of condition N2 and condition N3, noise from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.

(N2) When requested by the Administering Authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(N3) If the environmental authority holder can provide evidence through monitoring that the limits defined in Attachment 2 Table N1 Noise limits and Table N2 Airblast overpressure levels are not being exceeded then the holder is not in breach of condition N1.

Monitoring must include:

(a) LA, max adj, T
(b) the level and frequency of occurrence of impulsive or tonal noise;
(c) atmospheric conditions including wind speed and direction; and
(d) location, date and time of recording.

Note: See Attachments for Table N1 Noise limits and Table N2 Airblast overpressure level.

(N4) If monitoring indicates exceedence of the limits in Attachment 1 for Table N1 Noise limits and Table N2 Airblast overpressure level, then the environmental authority holder must:

(a) address the complaint including the use of appropriate dispute resolution if required; or
(b) immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.

Note: See Attachment 1 for Table N1 Noise limits and Table N2 Airblast overpressure level.

(N5) The method of measurement and reporting of noise levels must comply with the latest edition of the Environmental Protection Agency's Noise Measurement Manual.

(N6) Vibration nuisance

Subject to requirements of condition N7 and condition N8 vibration from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.

(N7) When requested by the Administering Authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring

(N8) If the environmental authority holder can provide evidence through monitoring that the limits defined in Attachment 2 Table N3 Vibration limits, are not being exceeded then the holder is not in breach of condition N6. Monitoring must include:

(a) location of the blast/s within the mining area (including which bench level); and
(b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and
(c) location, date and time of recording.

Note: See Attachment for Table N3 Vibration limits.

(N9) If monitoring indicates exceedence of the relevant limits in Attachment 1 Table N3 Vibration limits, then the environmental authority holder must:

(a) address the complaint including the use of appropriate dispute resolution if required; or
(b) immediately implement vibration abatement measures so that vibration from the activity does not result in further environmental nuisance.

Note: See Attachment 1 for Table N3 Vibration limits.

Agency Interest: Social

(S1) Complaint response

All complaints received must be recorded including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. This information must be made available for inspection by the administering authority on request.

Agency Interest: Waste

(W1) All reasonable and practicable fire prevention measures must be implemented, including removal of grass and other materials within a 10m radius of the scrap tyre storage area.

(W2) Storage of tyres

Tyres stored awaiting disposal or transport for take-back and, recycling, or waste-to-energy options - should be stockpiled in volumes less than 3m in height and 200 sq.m in area and at least 10m from any other tyre storage area.

Agency Interest: Water

(WA1) Stream sediment contaminant levels

All reasonable and practicable erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment.

(WA2) Within two months of the commencement of mining, a sump shall be constructed within the bed of Eastern Gully immediately downstream of the access road and the major junction on ML80004 for the purpose of determining the flow of sediment in the gully bed during storm events. The approximate location is shown as point A on Map 1 Locations of Monitoring Points and Waste Dumps in Attachment 3: the actual location will be advised in the plan of operations.

(WA3) After each storm event the accumulation of sediment in the monitoring sump in condition WA4 shall be determined and reported to the administering authority. Reporting and the maintenance of at least 50 % of original sump capacity shall continue until the holder is advised in writing by the administering authority that such reporting and maintenance is no longer required.

(WA4) Before disturbance of any existing waste dumps shown approximately at points D, E, F and G on Map 1 Locations of Monitoring Points and Waste Dumps in Attachment 3, or the commencement of construction of any new infrastructure in either Eastern or Western Gully, the holder must submit to the administering authority an amendment or replacement plan of operations that includes an action program describing the erosion control measures to be implemented to control potential sediment run-off from such disturbance.

(WA5) End of pipe release limits for process water and storm water contaminated by mining activities must be monitored at the locations and frequencies defined in Attachment 2 Table WA1 End of pipe monitoring locations and frequencies, and Attachment 3 Map 1 Locations of Monitoring Points and Waste Dumps and comply with the contaminant limits defined in Attachment 2 Table WA2 End of pipe contaminant release limits.

Note: See Attachment 1 for Table WA1 End of pipe monitoring locations and frequencies and Table WA2 End of pipe contaminant release limits, and Attachment 3 for Map 1 Locations of Monitoring Points and Waste Dumps.

ATTACHMENT 1 - DEFINITIONS

"acceptance criteria" means the measures by which the actions implemented to rehabilitate the land are deemed to be complete. The acceptance criteria indicate the success of the rehabilitation outcome or remediation of areas which have been significantly been disturbed by the mining activities. Acceptance criteria may include information regarding:

- vegetation establishment, survival and succession;
- vegetation productivity, sustained growth and structure development;
- fauna colonisation and habitat development;
- ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;
- microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and respiration;
- effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;
- resilience of vegetation to disease, insect attack, drought and fire;
- vegetation water use and effects on ground water levels and catchment yields.

"airblast overpressure" means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dB).

"ambient (or total) noise" at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval.

"competent person" means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.

"authority" means environmental authority (mining activities) under the *Environmental Protection Act 1994*.

"blasting" means the use of explosive materials to fracture-

(a) rock, coal and other minerals for later recovery; or
(b) structural components or other items to facilitate removal from a site or for reuse.

"commercial place" means a work place used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees accommodation or public roads.

"dam" means a containment or proposed containment whether permanent or temporary, which is designed to contain, divert or control flowable substances. However this does not include a fabricated or manufactured tank or container designed to a recognised standard.

"environmental authority holder" means the holder of this environmental authority.

"hazardous waste" means any substance, whether liquid, solid or gaseous, derived by or resulting from, the processing of minerals that tends to destroy life or impair or endanger health.

"$L_{A\ 10,\ adj,\ 10\ mins}$" means the A-weighted sound pressure level, *(adjusted for tonal character and impulsiveness of the sound)* exceeded for 10% of any 10-minute measurement period, using Fast response.

"$L_{A\ 1,\ adj,\ 10\ mins}$" means the A-weighted sound pressure level, *(adjusted for tonal character and impulsiveness of the sound)* exceeded for 1% of any 10-minute measurement period, using Fast response

"$L_{A,\ max\ adj,\ T}$" means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

"land" in the "land schedule" of this document means land excluding waters and the atmosphere.

"land capability" as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

"land suitability" as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

"land use" term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

"mandatory reporting level" means the volume below the spillway crest, equivalent to the lower of the AEP, 72 hour storm or the AEP wave allowance (AEP is the annual exceedence probability).

"mineral" means a substance which normally occurs naturally as part of the earth's crust or is dissolved or suspended in water within or upon the earth's crust and includes a substance which may be extracted from such a substance, and includes—

(a) clay if mined for use for its ceramic properties, kaolin and bentonite;
(b) foundry sand;
(c) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil therefrom;
(d) limestone if mined for use for its chemical properties;
(e) marble;
(f) mineral oil or gas extracted or produced from shale or coal by in situ processes;
(g) peat;
(h) salt including brine;
(i) shale from which mineral oil may be extracted or produced;
(j) silica, including silica sand, if mined for use for its chemical properties;
(k) rock mined in block or slab form for building or monumental purposes;

but does not include—

(l) living matter;
(m) petroleum within the meaning of the Petroleum Act 1923;
(n) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form;
(o) water.

"noxious" means harmful or injurious to health or physical well being, other than trivial harm.

"non-standard" means a mining operation that if in the opinion of the administering authority does not have a low risk of serious environmental harm and the activities can not comply with the criteria for standard mining activities prescribed in schedule 1A of the *Environmental Protection Regulation 1998.* The standard mining activity trigger criteria are as follows;

- the mining activities do not or will not cause more than 10 ha of land to be significantly disturbed at any one time;
- the mining activities do not or will not cause more than 5 ha of land to be significantly disturbed at any one time;
  (a) in a riverine area;
  (b) because of mine workings;
- the mining activities are not or will not be carried out in, or within 2 km of a category A *Environmentally Sensitive Area*;
- the mining activities are not or will not be carried out in, or within 1 km of a category B environmentally sensitive area;
- the mining activities do not include a level 1 environmentally relevant activity
- no more than 20 persons are carrying out or will, at any one time, carry out the mining activities;

"offensive" means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.

"peak particle velocity (ppv)" means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mms^{-1}).

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.

"reference site" (or analogue site) may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.

"rehabilitation" the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.

"representative" means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

"residual void" means an open pit resulting from the removal of ore and/or waste rock which will remain following the cessation of all mining activities and completion of rehabilitation processes.

"self sustaining" means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- an educational institution; or
- a medical centre or hospital; or
- a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
- a public park or gardens.

"significant disturbance" – includes land

(a) if it is contaminated land; or

(b) it has been disturbed and human intervention is needed to rehabilitate it.

i. to a state required under the relevant environmental authority; or

ii. if the environmental authority does not require the land to be rehabilitated to a particular state – to its state immediately before the disturbance.

Some examples of disturbed land include:

- areas where soil has been compacted, removed, covered, exposed or stockpiled;
- areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil)
- areas where land use suitability or capability has been diminished;
- areas within a watercourse, waterway, wetland or lake where mining activities occur;
- areas submerged by tailings or hazardous contaminant storage and dam walls in all cases;
- areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after mining activities have ceased; or
- areas where land has been contaminated and a suitability statement has not been issued.

However, the following areas are not included:

- areas off lease (e.g. roads or tracks which provide access to the mining lease);
- areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- by agreement with the EPA, areas previously significantly disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the EPA;
- disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

"spillway" means passage or outlet from the dam through which surplus water flows.

"stable" means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation / settlement of the wastes deposited, and sliding / slumping instability has ceased.

"trivial harm" means environmental harm which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than $5,000.

"watercourse" - Means a river, creek or stream in which water flows permanently or intermittently in a visibly defined channel (natural, artificial or artificially improved) with:

(a) continuous bed and banks;
(b) an extended period of flow for some months after rain ceases, and
(c) an adequacy of flow that sustains basic ecological processes and maintains biodiversity.

"waters" includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea) or any part-thereof.

END OF CONDITIONS

ATTACHMENT 2 - TABLES

Table WA1 - End of pipe monitoring locations and frequency

Monitoring point	Latitude (GDA 94)	Longitude (GDA 94)	Monitoring frequency
Discharge from Eastern gully (East boundary of ML80004) Point B	See note 1.	See note 1.	Once per storm event per month
Discharge from sediment dam – Western Gully (West boundary of ML5780) Point C	See note 1.	See note 1.	Once per storm event per month

NOTE 1 The approximate locations of monitoring points B and C are marked on Map 1 Locations of Monitoring Pints and Waste Dumps in Attachment 3 and actual locations shall be identified in decimal degrees in the plan of operations before mining commences.

Table WA2 - End of pipe contaminant release limits

Parameter	Units	Minimum	Maximum
Total suspended solids	Mg/L	n/a	800

NOTE: This does not apply to dams containing hazardous waste.

Table N1 - Noise limits

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L_{A10}, adj, 10 mins	b/g+5	b/g+5	b/g+3	b/g+5	b/g+5	b/g+0
L_{A1}, adj, 10 mins	b/g+10	b/g+10	b/g+5	b/g+10	b/g+10	b/g+5
	Noise measured at a 'Commercial place'					
L_{A10}, adj, 10 mins	b/g+10	b/g+10	b/g+5	b/g+10	b/g+10	b/g+5
L_{A1}, adj, 10 mins	b/g+15	b/g+15	b/g+10	b/g+15	b/g+15	b/g+10

Note: The method of measurement and reporting of noise levels must comply with the latest edition of the Environmental Protection Agency's Noise Manuals.

Table N2 - Airblast Overpressure Level

Location	Monday to Friday 7 am - 6 pm Saturday 7 am - 6 pm	Sundays and public holidays
Sensitive place	Air blast overpressure level of 115 db (linear peak.) for nine (4) out of ten (5) consecutive blasts initiated and not greater than 120 db (Linear peak) at any time.	Air blast overpressure level of 110 db (linear peak)
Commercial place	Air blast overpressure level of 115 db (linear peak.) for nine (4) out of ten (5) consecutive blasts initiated and not greater than 120 db (Linear peak) at any time.	Air blast overpressure level of 110 db (linear peak)

Note: The method of measurement and reporting of over pressure levels must comply with the latest edition of the Environmental Protection Agency's vibration and air blast overpressure monitoring guideline.

Table N3 - Vibration limits

Location	Vibration measured	
	Monday to Friday 7am - 6 pm Saturday 7am - 6 pm	Sundays and public holidays
Sensitive place	5mm/s peak particle velocity for nine (4) out of ten (5) consecutive blasts and not greater than 10 mm/s peak particle velocity at any time	5 mm/s peak particle velocity for four (4) out of five (5) consecutive blasts and not greater than 10 mm/s peak particle velocity at any time
Sensitive place	10mm/s peak particle velocity for nine (4) out of ten (5) consecutive blasts and not greater than 15 mm/s peak particle velocity at any time	5 mm/s peak particle velocity for four (4) out of five (5) consecutive blasts and not greater than 10 mm/s peak particle velocity at any time

Note: The method of measurement and reporting of vibration levels must comply with the latest edition of the Environmental Protection Agency's vibration and air blast overpressure monitoring guideline.

Table L2 - Residual Void Design

Void identification	Void wall - competent rock max slope (%)	Void wall - incompetent rock max slope (%)	Void surface area (max ha)
Pit – ML5772	215%	100%	11.3ha
Pit – ML5780	215%	100%	4.38ha

Table L1 - Final land use suitability, landform design criteria and rehabilitation approval schedule

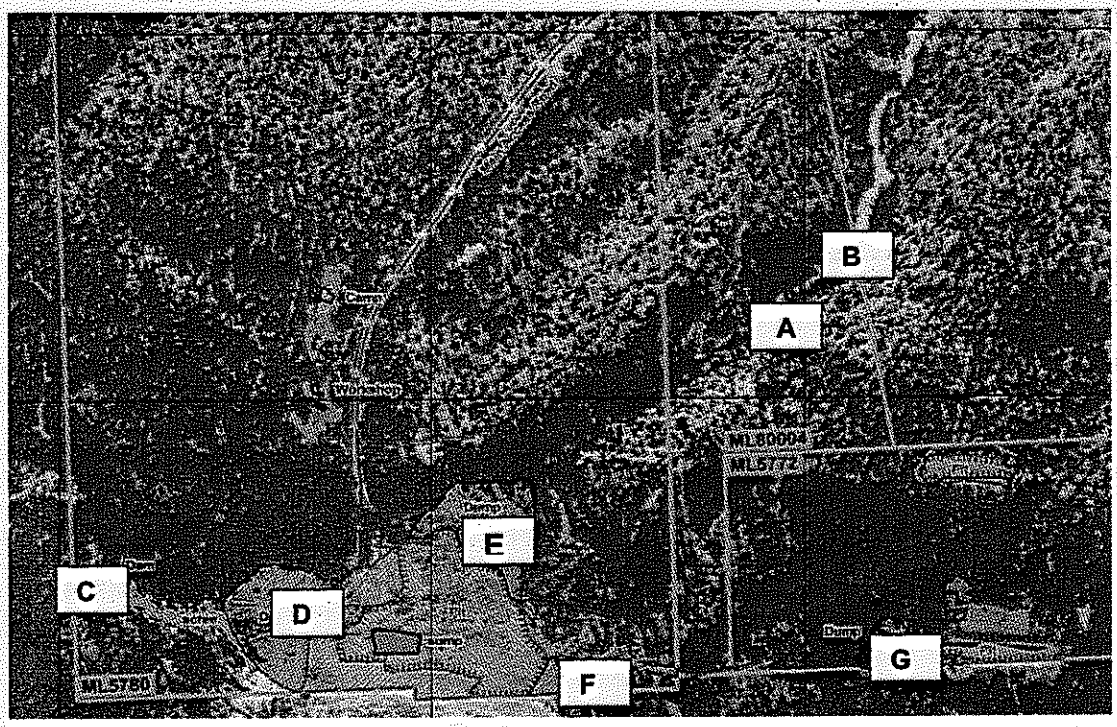
Disturbance type	Tenure (ML)	Projected surface area (ha)	Slope Range (%)	Pre-mining land suitability*		Post-mining land suitability*	
				Agriculture	Conservation	Agriculture	Conservation (Note 2)
Residual voids	5780 5772	15.5	100-215	5	2	5	3 (Native ecosystem)
Waste rock dumps	5780 5772 80004	12	50-75	5	2	5	3 (Native ecosystem)
Sediment dams	80004 5780	0.6	33-50	5	1	5	3 (Dam)
Roads and tracks	5780 5772	0.8	Natural surface	5	2	5	3 (Road)
Infrastructure and camp	5780	0.8	Natural surface	4	1	4	2 (Native ecosystem)
Exploration	5780 5772 80004 7577	N/a	Natural surface	5	1	5	2 (Native ecosystem)

*Note 1: *Land suitability determined by method in 'Land suitability assessment techniques' in Technical guidelines for the environmental management of exploration and mining in Queensland, DME, 1995.*

Note 2: Native ecosystem / bush-land re-vegetation species – see pages 40 & 41 Jul 2003 EMOS.

Attachment 3

MAP



Map 1 – Locations of Monitoring Points and Waste Dumps.