<table>
<thead>
<tr>
<th>Relevant mining activity</th>
<th>Emissions or releases likely to be generated</th>
<th>Description of the risk &amp; likely magnitude of impacts on the environmental values</th>
<th>Mitigation methods</th>
<th>Rehabilitation</th>
</tr>
</thead>
</table>
| Access road construction | • Diesel spillage  
• Silt run-off into creeks | Contamination of:  
• Soil  
• Ground-waters | Low | • Water cart  
• Diesel stored in double-lined above ground tank  
• Supply of hydrocarbon spill kits  
• Avoid creek crossings where possible  
• Creek culverts/pipes where necessary  
• Benign limestone road base used  
• Sealing of road (bitumen)  
• Installation of silt traps  
• Installation of cattle grids  
• Minimise site clearing  
• Cultural heritage survey before commencement of work  
• Activities stopped during rains | Should the background tenure holder request, the access road & cattle-grids could be left.  
• All human waste will be removed  
• Removal of pipes & culverts  
• Removal of silt traps  
• Scarifying of all levelled areas/roads  
• Return of stockpiled overburden  
• Return of stockpiled topsoil  
• Return of stockpiled vegetation |
| Environmental fence installation (around entire lease boundary) | • Diesel spillage  
• Silt run-off into creeks | Contamination of:  
• Soil  
• Ground-waters | Low | • Avoid creek crossings where possible  
• Creek culverts/pipes where necessary  
• Installation of silt traps  
• Minimise site clearing  
| | | | | | |
| Env Impact Risk Matrix | | CORRECTIVE ACTIONS | | |
| | | Existing controls adequate | | |
| | | Additional controls needed  
Constant monitoring needed | | |

* Corrective Actions to be reviewed monthly as per the Envir. Impact Risk Matrix following monitoring

# Appendix 1. Analytical Report on Melody Samples

& AS 1692 Tanks for Flammable & Combustible Liquids, AS 1940 The Storage and Handling of Flammable & Combustible Liquid
<table>
<thead>
<tr>
<th>Mining Lease land clearing</th>
<th>Construction of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- office</td>
<td>- office</td>
</tr>
<tr>
<td>- crib-room</td>
<td>- crib-room</td>
</tr>
<tr>
<td>- first-aid room</td>
<td>- first-aid room</td>
</tr>
<tr>
<td>- storeroom</td>
<td>- store room</td>
</tr>
<tr>
<td>- generator</td>
<td>- generator</td>
</tr>
<tr>
<td>- fresh water dam</td>
<td>(container format)</td>
</tr>
<tr>
<td>- roads</td>
<td></td>
</tr>
<tr>
<td>- proposed pit area</td>
<td></td>
</tr>
<tr>
<td>- stockpile areas</td>
<td></td>
</tr>
</tbody>
</table>

- Diesel exhaust emissions
- Diesel spillage
- Airborne limestone dust
- Silt run-off into creeks

Contamination of:
- Atmosphere
- Soil
- Ground-waters

<table>
<thead>
<tr>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little vegetation</td>
</tr>
<tr>
<td>Little top soil</td>
</tr>
<tr>
<td>Little overburden</td>
</tr>
</tbody>
</table>

- Minimisation of diesel exhaust emissions with maintained vehicle engines
- Water cart
- Diesel stored in double-lined above ground tank
- Supply of hydrocarbon spill kits
- Avoid creek crossings where possible
- Creek culverts/pipes where necessary
- Sealing of permanent roads & infrastructure area
- Benign limestone road base used
- Installation of silt traps
- Minimise site clearing
- Vegetation/Topsoil/Overburden stockpiled for future rehabilitation
- Land disturbance kept to 9.75 ha
- License dam construction
- Environmental fencing depriving access by fauna
- Activities stopped during rains

- All human waste will be removed on a daily basis
- Removal of all infrastructure
- Levelling of stockpiles
- Scarifying of all levelled areas/roads
- Return of stockpiled overburden
- Return of stockpiled topsoil
- Return of stockpiled vegetation

<table>
<thead>
<tr>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water cart</td>
</tr>
<tr>
<td>Diesel stored in double-lined above ground tank</td>
</tr>
<tr>
<td>Supply of hydrocarbon spill kits</td>
</tr>
<tr>
<td>Fencing depriving access of fauna</td>
</tr>
<tr>
<td>Activities stopped during rains</td>
</tr>
</tbody>
</table>

- Removal of all infrastructure
- Levelling of stockpiles
- Scarifying of all levelled areas/roads
- Return of stockpiled overburden
- Return of stockpiled topsoil
- Return of stockpiled vegetation
<table>
<thead>
<tr>
<th>Mining</th>
<th>Contamination of:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| • harvesting loose limestone rock  
  – no drilling  
  – no blasting | • Diesel spillage  
  • Airborne limestone dust  
  • Silt run-off into creeks | Contamination of: | Low | • Water cart  
  • Diesel stored in double-lined above ground tank  
  • Supply of hydrocarbon spill kits  
  • Environmental fencing depriving access by fauna  
  • Activities stopped during rains  
  • Environment monitoring  
  – dust  
  – runoff into ephemeral creeks | • All human waste will be removed on a daily basis  
  • Levelling of stockpiles  
  • Scarifying of all levelled areas/roads  
  • Return of stockpiled overburden  
  • Return of stockpiled topsoil  
  • Return of stockpiled vegetation |

<table>
<thead>
<tr>
<th>Mining</th>
<th>Contamination of:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| • pit development  
  – drilling  
  – blasting | • Diesel exhaust emissions  
  • Diesel spillage  
  • Airborne limestone dust  
  • Silt run-off into creeks | Contamination of: | Moderate | • Minimisation of diesel exhaust emissions with maintained vehicle engines  
  • Water cart  
  • Diesel stored in double-lined above ground tank  
  • Supply of hydrocarbon spill kits  
  • Environmental fencing depriving access by fauna  
  • Earth bunding of pit circum. (0.75 m high)  
  • Activities stopped during rains  
  • Controlled blasting to avoid fly rock  
  • No explosives stored on site  
  • Final pit floor (30 m depth) above ground water table (35 m depth)  
  • Environment monitoring  
  – dust  
  – runoff into ephemeral creeks  
  – ground vibration | • All human waste will be removed on a daily basis  
  • Leave bunding of pit circumference  
  • Scarifying of all levelled areas/roads  
  • Return of stockpiled overburden  
  • Return of stockpiled topsoil  
  • Return of stockpiled vegetation |

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φ Rex Singline/Smart Environment (reviewing of Corrective Measures to be done on a monthly basis as per the Risk Matrix)
<table>
<thead>
<tr>
<th>Installation of mobile crushing &amp; screening plant</th>
<th>• Diesel spillage</th>
<th>Contamination of: • Soil • Ground-waters</th>
<th>Low</th>
<th>• Water cart • Diesel stored in double-lined above ground tank • Fencing depriving access by fauna • Activities stopped during rains</th>
<th>See below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing &amp; Screening</td>
<td>• Diesel exhaust emissions • Diesel spillage • Airborne limestone dust • Silt run-off into creeks</td>
<td>Contamination of: • Atmosphere • Soil • Ground-waters</td>
<td>Moderate</td>
<td>• Minimisation of diesel exhaust emissions with maintained vehicle engines • Dust suppression – water cart – sprays on plant • Benign limestone road base used • Diesel stored in double-lined above ground tank • Environmental fencing depriving access by fauna • Activities stopped during rains • Environment monitoring – dust – runoff into ephemeral creeks</td>
<td>All human waste will be removed on a daily basis • Removal of plant, equipment, diesel tanks &amp; oils/greases • Scarifying of cleared areas • Return of stockpiled overburden • Return of stockpiled topsoil • Return of stockpiled vegetation</td>
</tr>
<tr>
<td>Haulage to market</td>
<td>• Diesel spillage • Airborne limestone dust • Silt run-off into creeks</td>
<td>Contamination of: • Soil • Ground-waters</td>
<td>Low</td>
<td>• Water cart • Diesel stored in double-lined above ground tank • Product carted in sealed ‘half-height’ containers • Activities stopped during rains • Environment monitoring – dust – runoff into ephemeral creeks</td>
<td>Scarifying of roads • Return of stockpiled overburden • Return of stockpiled topsoil • Return of stockpiled vegetation</td>
</tr>
</tbody>
</table>

**Risk Assessment associated with all Mining Activities on MLA 20562**