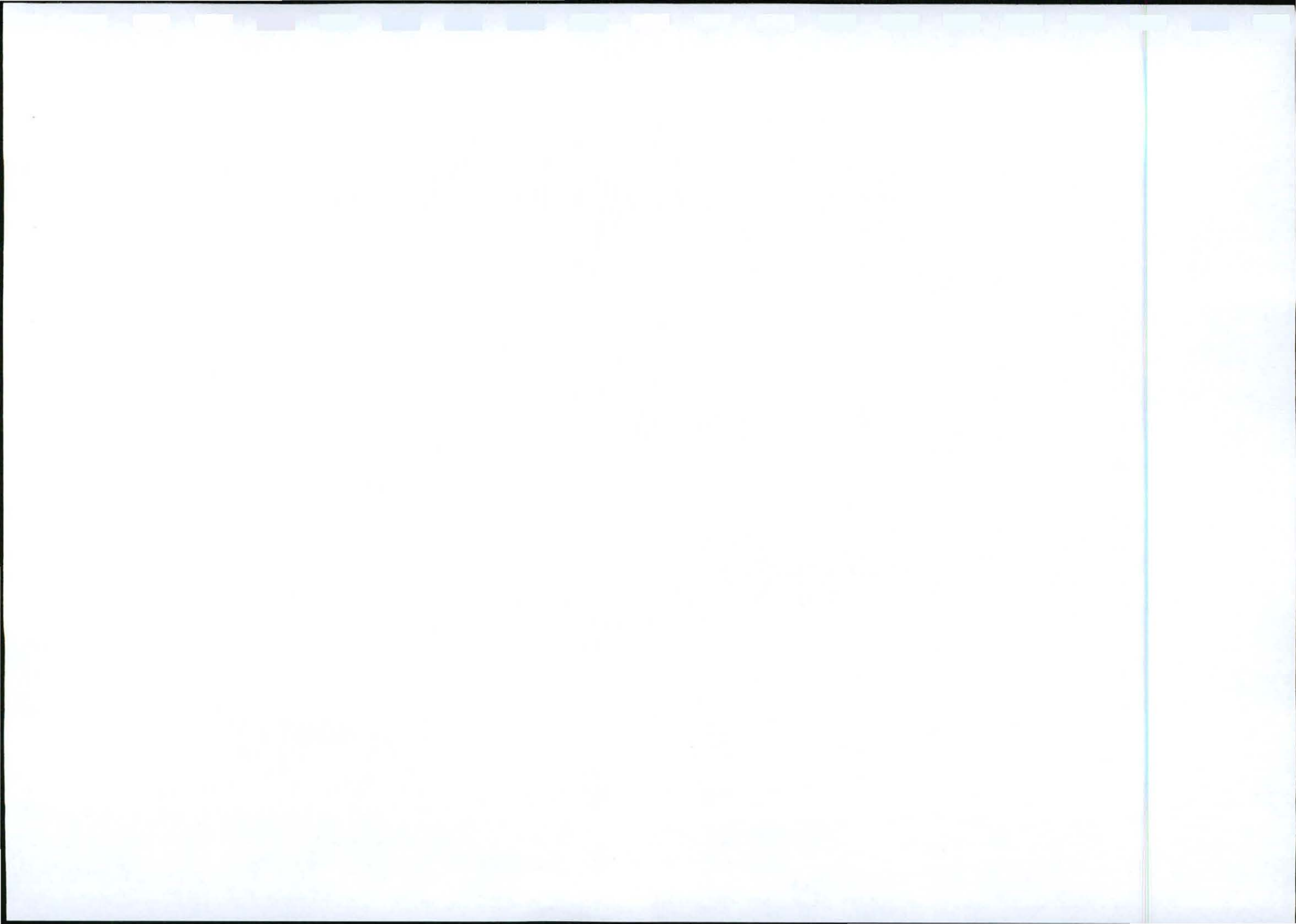




| | | |
|--|-----------|-------|
| C 2.2 How large will the <i>total</i> area of all excavations be? | | < 2ha |
| The registered area is 1.42 ha and the total area of the excavations is anticipated to be less than 1.5ha. | | |
| C 2.3 How large will each excavation be before it is filled up? | <10 X 10m | 2 |
| | <20 X 20m | X 4 |
| | >20 X 20m | 8 |
| C 2.4 How many <i>prospecting</i> boreholes or trenches will there be? | 0 | |
| Kindly note that this is an application for a borrow pit and no prospecting boreholes will be needed. | | |

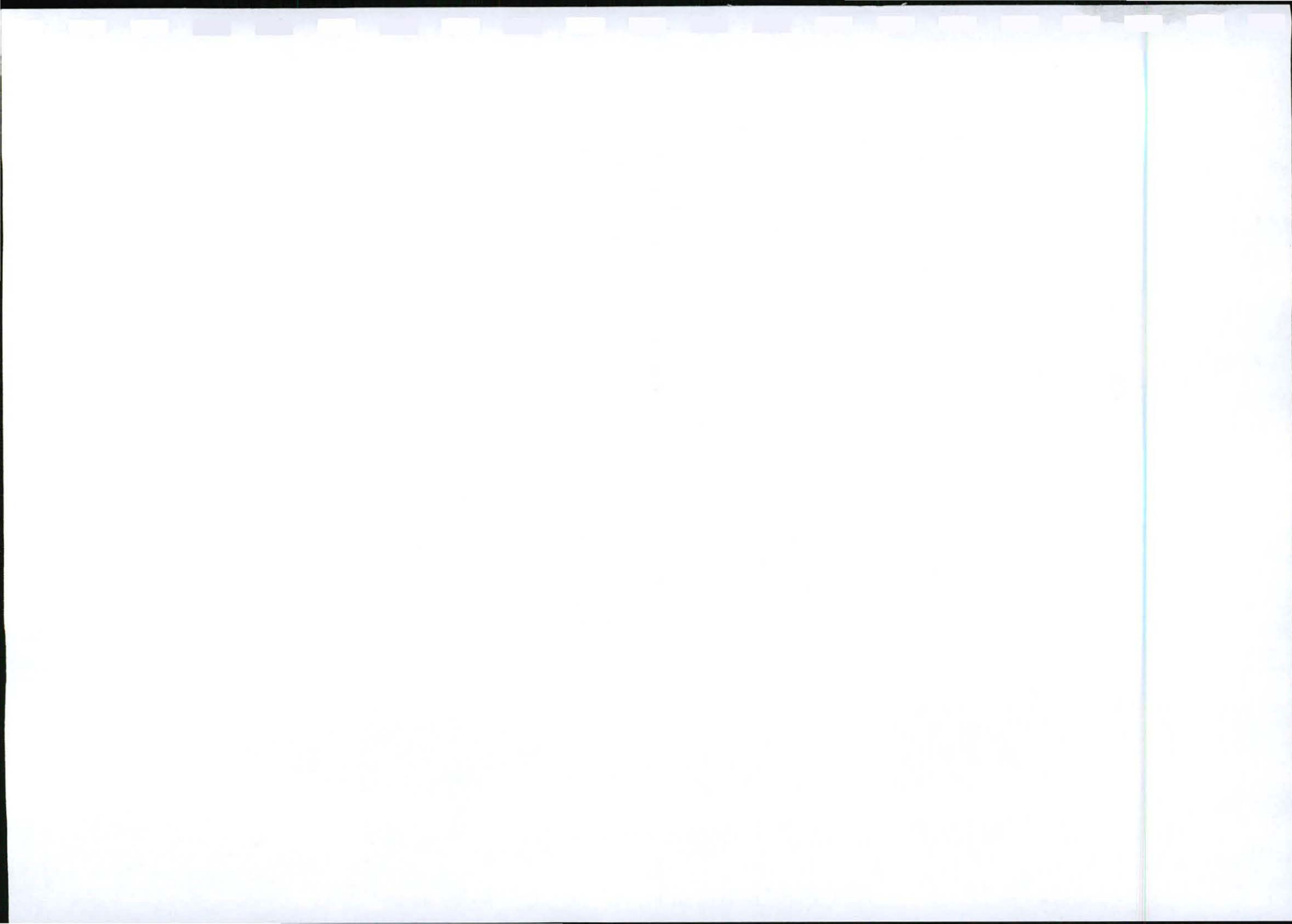
| | VALUE | TICK | OFFICE USE |
|---|--|------|------------|
| C 2.5 Will employees prepare food on the site and collect firewood? | Yes | | 4 |
| | No | X | 0 |
| C 2.6 Will water be extracted from a river, stream, dam or pan for use by the proposed operation? | Yes | | 4 |
| | No | X | 2 |
| No water will be needed during the operation of the borrow pit. | | | |
| C 2.7 If so, what is the name of this water body? | Not applicable. | | |
| C 2.8 If water will not be extracted from an open surface source, where will it be obtained? | No water will be required during the excavation. | | |
| | VALUE | TICK | OFFICE USE |
| C 2.9 How much water per day will the <i>mineral processing</i> operation require? | 1000 – 10 000 Liters | X | 2 |
| | 20 000 – 40 000 L | | 3 |
| | 40 000 – 60 000 L | | 5 |
| | 60 000 – 100 000L | | 8 |
| | More | | 10 |
| Kindly note that there will be no mineral processing to take place; therefore no water will be used during the proposed borrow works. | | | |
| C 2.10 How far is the proposed operation from open water (dam, river, pan, lake)? | 0 – 15m | | 8 |
| | 16 – 30m | | 6 |
| | 31 – 60m | | 4 |
| | More than 60 metres | X | 2 |
| The nearest river is located approximately 2.48km West of the borrow pit site. | | | |
| C 2.11 What is the estimate depth of the water table/ borehole? | | 40 | metres |
| The depth of the water table is unknown. | | | |





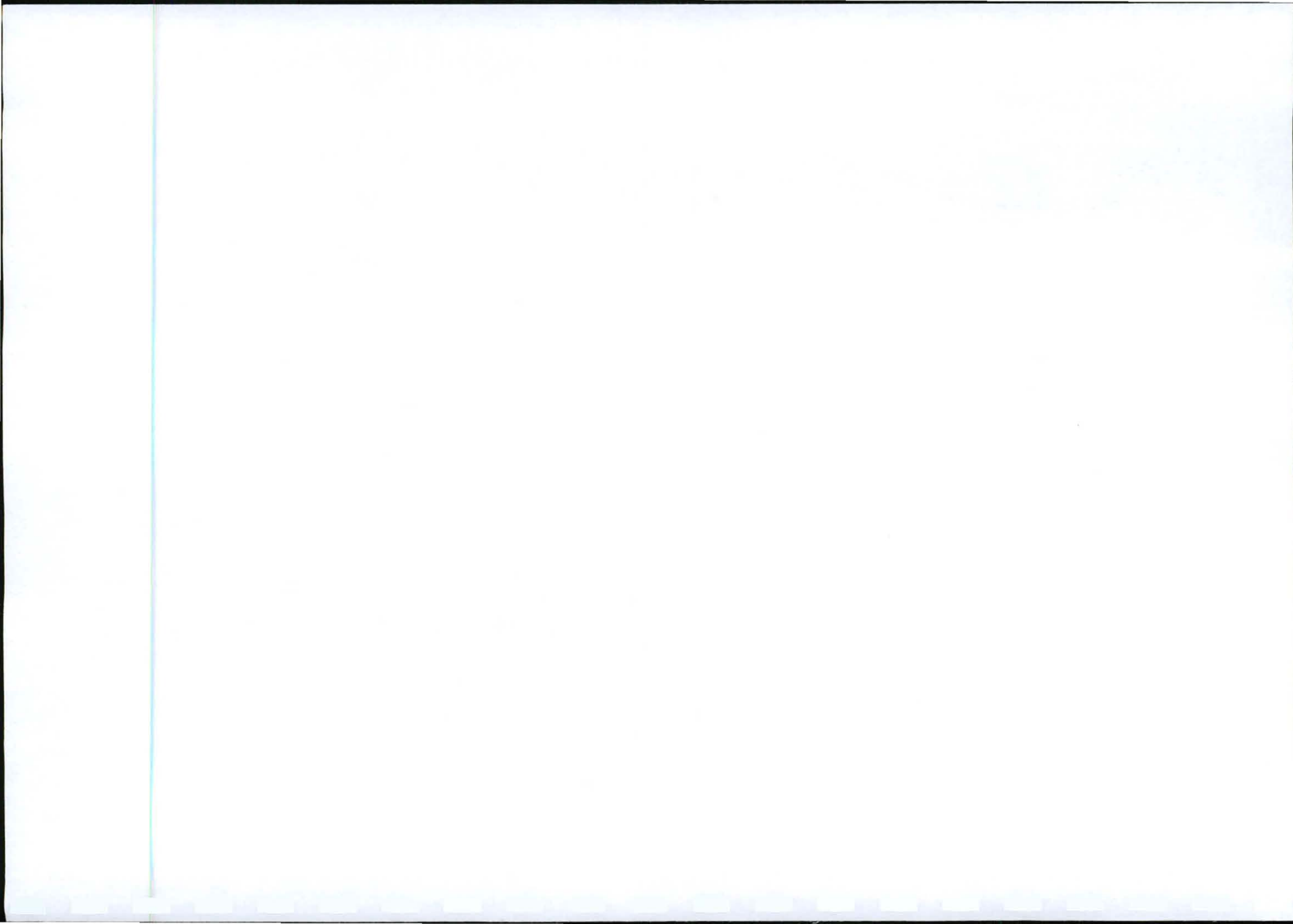
| | | | |
|--|-------------------------|----|--------|
| C 2.12 How much water per day will the proposed operation utilize <i>for employees</i> ? | | 50 | Liters |
| The proposed operation will not use water. | | | |
| C 2.13 What toilet facilities will be made available to workers? | None | | 8 |
| | Pit latrine (long drop) | | 4 |
| | Chemical toilet | X | 2 |
| C 2.14 Would it be necessary to construct roads to access the proposed operations? | Yes | | 4 |
| | No | X | 0 |
| Access road to the site already exists; therefore there will be no need to construct access roads. The borrow pit is located approximately 40m on the left shoulder of road D579 on a North-southerly direction from Milkriver to Vaalwater. | | | |

| | VALUE | TICK | OFFICE USE |
|---|----------------|------|------------|
| C 2.15 How long will these access road(s) be (from a public road to the proposed operations) | 0 – 0,5 km | | 4 |
| | 0,6 – 1,5 km | | 2 |
| | 1,6 – 3 km | | 4 |
| Not applicable, no access route will be constructed for this operation. | | | |
| C 2.16 Will trees be uprooted to construct these access road(s)? | Yes | | 4 |
| | No | X | 0 |
| C 2.17 Will any foreign material, like crushed stone, limestone, or any material other than the naturally occurring topsoil be placed on the road surface? | Yes | X | 4 |
| | No | | 0 |
| C.3 TIME FACTOR | | | |
| C 3.1 for what time period will mining operations be conducted on this particular site? | 0 – 6 months | | 2 |
| | 6 – 12 months | X | 4 |
| | 12 – 18 months | | 6 |
| | 18 – 24 months | | 8 |
| | >24 months | | 10 |
| Kindly note that the mining period is dependent on the duration of the construction of the road . However, it is anticipated that this will continue for a period not more than twelve calendar months. | | | |





| C.4 HOW WILL THE PROPOSED OPERATION IMPACT ON THE SOCIO-ECONOMIC ENVIRONMENT? (REGULATION 52(2)(b)) | | | |
|--|--------------------|----------------|------------|
| ELEMENT/ IMPACTOR | VALUE | TICK | OFFICE USE |
| C 4.1 How many people will be employed? | • <100 | | |
| C 4.2 How many men? | • <50 | | |
| C 4.3 How many women? | • <50 | | |
| C 4.4 Where will employees be obtained? (Own or employed from local communities?) | Own | | 2 |
| The number of people to be employed during the operation is unknown at this stage. Specific procurement targets and percentages are not defined at this early stage of the development. The responsible contractor as a responsible organization will ensure that procurement policies with respect to women, disabled and previously disadvantaged individuals will be in line with South African procurement guidelines and will be implemented as far as possible. The contractor will determine this on appointment. | | | |
| | Local | Unknown | 4 |
| C 4.5 How many hours per day will employees work? | Sunrise → Sunset | X | 4 |
| | Less | | 2 |
| | More | | 8 |
| | VALUE | TICK | OFFICE USE |
| C 4.6 Will operations be conducted within 1 kilometer from a residential area | Yes | X | 6 |
| | No | | 1 |
| C 4.7 How far will the proposed operation be from the nearest fence/windmill/house/dam/built structure? | 0 – 50 metres | | 8 |
| | 51 – 100 metres | | 4 |
| | 150 or more metres | X | 2 |
| The nearest house/residential dwelling is located approximately 1.2km from the centreline of the borrow pit site. | | | |
| C.5 HOW WILL THE PROPOSED OPERATION IMPACT ON THE CULTURAL HERITAGE OF THE SURROUNDING ENVIRONMENT? REGULATION 52(2)(b) | | | |
| ELEMENT/ IMPACTOR | VALUE | TICK | OFFICE USE |





| | | | |
|--|-----|---|---|
| C 5.1 Are there any graveyards or old houses or sites of historic significance within 1 kilometer of the area? | Yes | | 8 |
| | No | X | 0 |

During the site investigations conducted by the Environmental Assessment Practitioner (EAP), there were no signs of graveyards or old houses or sites of historic significance that were noted to occur on site. If any heritage resources of significance are exposed during the construction, the South African Heritage Resources Authority (SAHRA) / Limpopo Heritage Resources Authority (LIHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorization (permits) from SAHRA to conduct the mitigation measures.

C.6 SPECIFIC REGULATORY REQUIREMENTS

C.6.1 Air quality Management and Control (Regulation 64)

Describe how the operation will impact on the quality of the air, taking into account predominant wind direction and other affected parties in the downwind zone:

It is anticipated that the proposed operation is likely to generate dust during operation and rehabilitation. This impact is however considered to be minimal and short term and it is considered not to be a nuisance as there are no residential dwellings in close proximity to the site. During operation and rehabilitation of the borrow pit, the following shall be applied to limit amount of dust generation.

- Mining activities are to be done at permitting weather to avoid excessive dust generation.
- Hauling trucks are to travel at minimum speeds to avoid material being blown by wind during transportation.
- Vegetation clearing must be done at areas to be affected by the mining operations only.
- No clearing of vegetation in areas not directly affected by the excavations/mining activities
- Dust suppression techniques including regular wetting of exposed soils surfaces is to be employed during rehabilitation of the borrow pit.

C.6.2 Fire Prevention (Regulation 65)

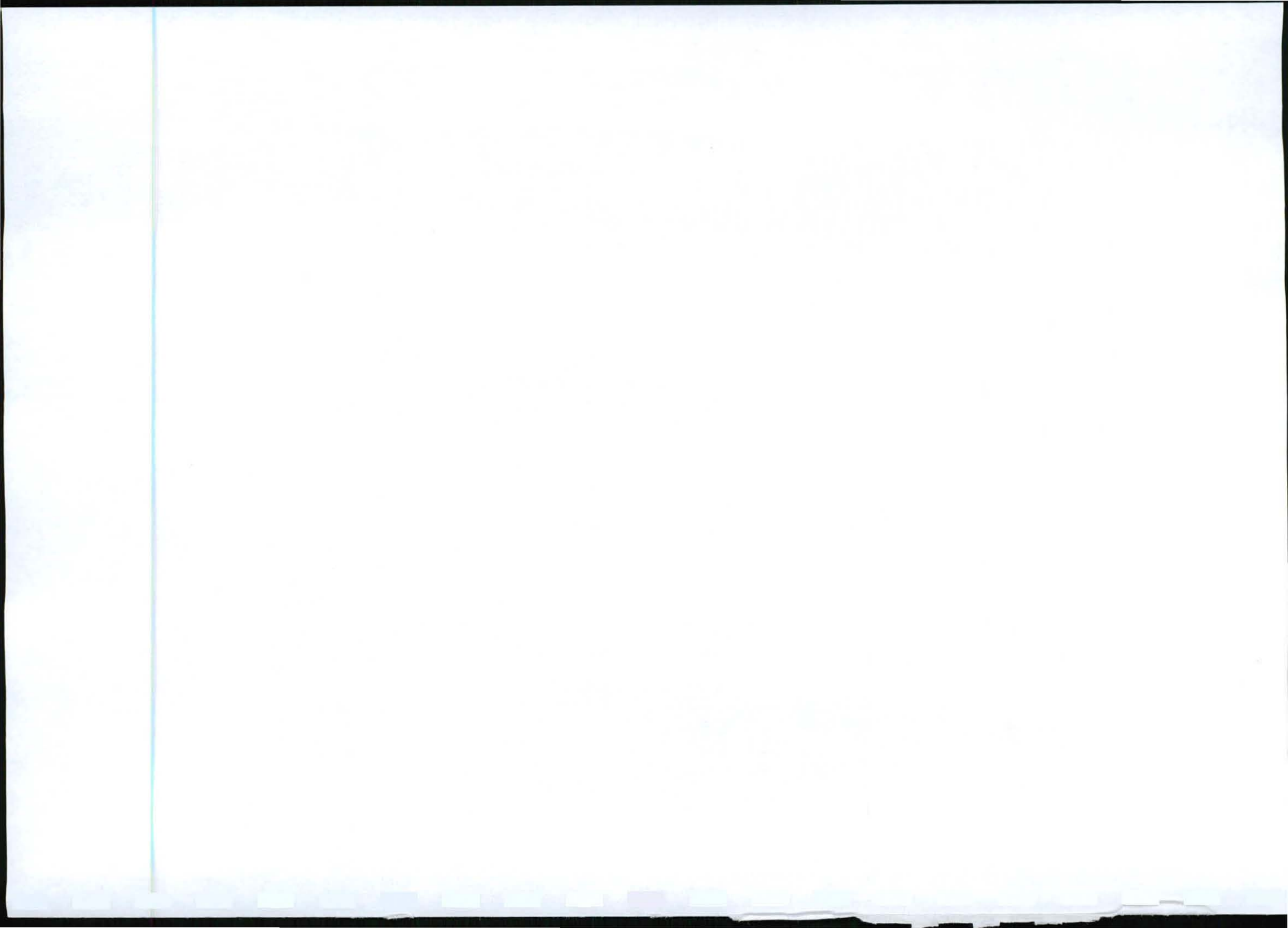
Applicants for permits, rights or permissions involving **coal or bituminous rock** must:

- **Indicate on a plan** where the coal or rock discard dump will be located
(If applied for a permit to mine or prospect for coal or bituminous rock, indicate the exact location of the discard dump on the plan and write "EMPlan C6.2" next to it)

Not applicable.

C.6.3 Noise control (Regulation 66)

Indicate how much noise the operation will generate, and how it will impact on the surrounding environment, which might be influenced by noise from your operation.





The borrowing activities are likely to generate noise during operation. Noise can be expected from anytime between sunrise and sunset. This is likely to result from vehicles and machinery used during the operation and rehabilitation of the site. This impact is considered minimal and will only last for the duration of the operations. The site is located away from residential dwellings; noisy activities are not likely to cause or contribute to noise nuisance as there are no noise receptors nearby. It is however recommended that the following be implemented to limit noise nuisance generated during operation:

- Noisy activities must be limited to normal working hours.
- The use of sound amplifying devices is strictly prohibited.
- Should blasting be required, this should be done in consultation with nearby residents and should be carried out during office hours.

C.6.4 Blasting, vibration and shock (Regulation 67)

Please indicate whether any blasting operations will be conducted.

| | | |
|--|-----------|------------|
| Blasting: | No | How often? |
| No blasting will be required for this operation. | | |

C.6.5 Disposal of waste material (Regulation 69)

Indicate on your plan where waste will be dumped in relation to the beneficiation works/ washing pans Also indicate below how domestic waste material will be managed.

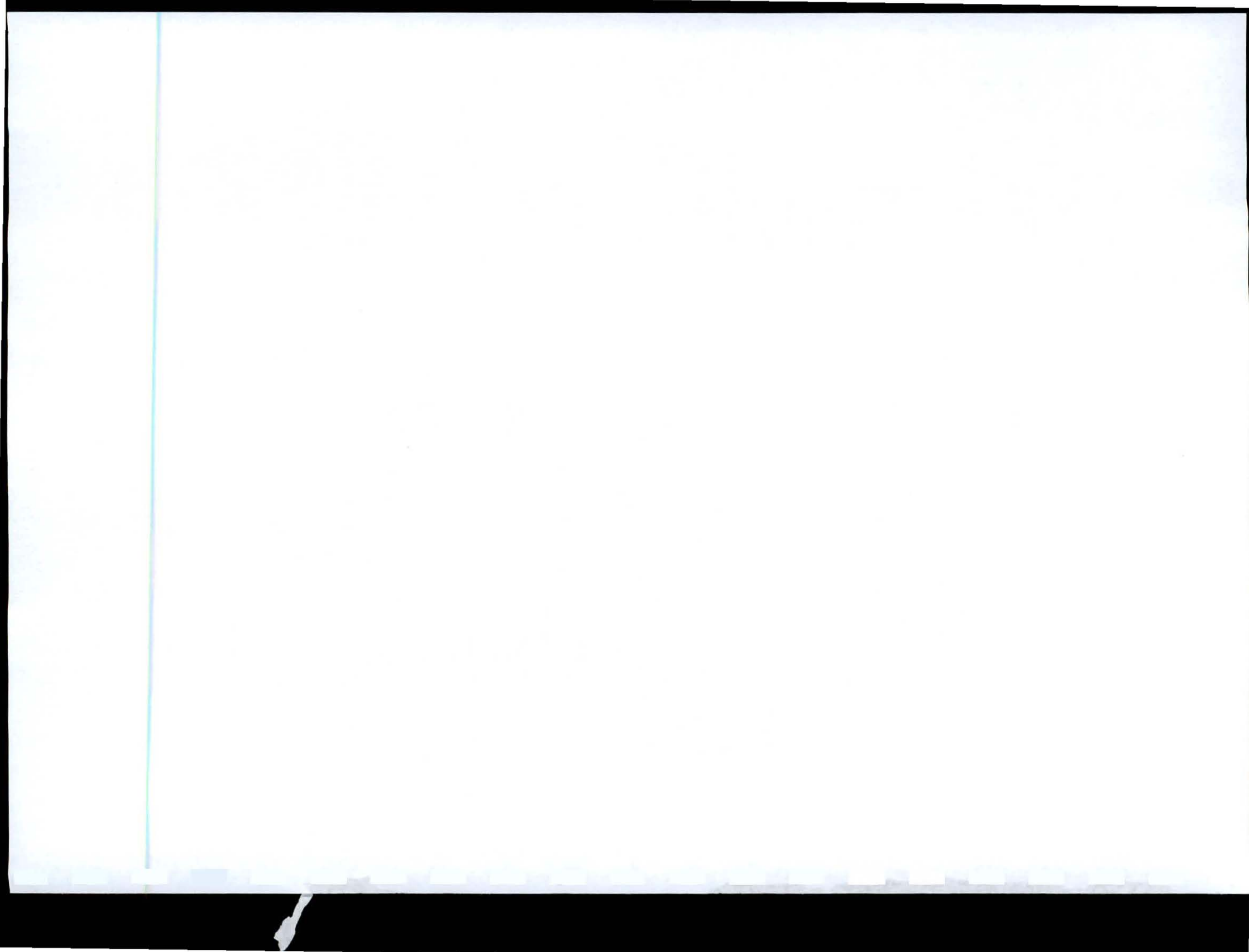
Due to the small scale of the operation, it is anticipated that domestic waste will be generated. This will be little in quantity. However refuse bins will be supplied for collection of waste generated on site. Such waste will be collected and disposed of accordingly.

C.6.6 Soil pollution and erosion control (Regulation 70)

6.6.1 Indicate how topsoil will be handled on the area.

Topsoil will be stock piled so it can be reused for the rehabilitation of the borrow pit. Soil erosion and pollution control measures as indicated in the EMP are to be employed. The contractor should, prior to the commencement of earthworks determine the average depth of topsoil (where applicable), and agree on this with the Environmental Control Officer (ECO). The full depth of topsoil should be stripped from areas affected by the mining activity and related activities prior to the commencement of mining. These soils shall be stockpiled in a designated area. Topsoil must be reused where possible to rehabilitate disturbed areas. The following measures must be applied to prevent soil pollution and erosion:

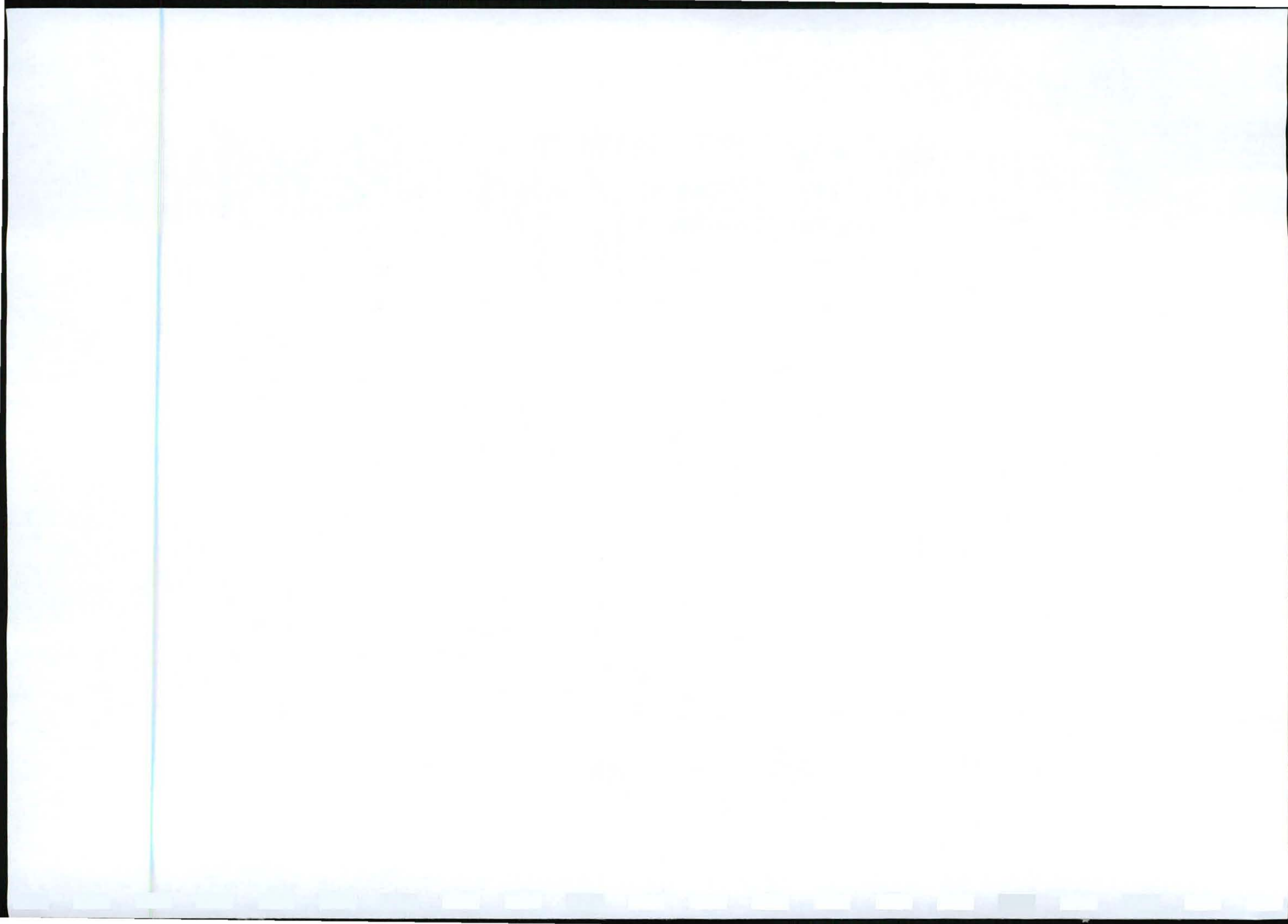
- Care must be taken not to mix topsoil and subsoil during stripping.
- Topsoil should not be stockpiled higher than 1.5 meters.
- Should any topsoil become polluted the contractor must remove the polluted soil to the full depth of pollution. Removed polluted topsoil should be transported to a licensed landfill site.
- Wind screening and storm water control should be undertaken to prevent topsoil loss from the site.
- Vegetation should be retained where possible to avoid soil erosion.
- Vegetation clearance should be phased to ensure that the minimum area of soil is exposed to potential erosion at any one time.





| |
|---|
| <ul style="list-style-type: none"> • Re-vegetation of disturbed surfaces should occur immediately after mining activities. |
| <p>6.6.2 Describe how spills of oil, grease, diesel, acid or hydraulic fluid will be dealt with.</p> <p>Due to the small scale of the operation, it is anticipated that no major spills are likely to occur. However the likeliness of such incidents occurring can not be ruled out. Any spillage which may occur during operation shall be investigated and be cleaned immediately.</p> |
| <p>6.6.3 Briefly describe the storage facilities available for the above fluids:</p> <p>For this operation, it is recommended that the construction camp site established for use during the construction (preventative maintenance) of the road be used for storage of fluids and other substances. All fluids are to be stored in areas designated for such purposes.</p> |

| C.6.7 If significant impacts on any element of the environment mentioned in Section C 1 to C 6.6 above have been identified, summarise all of them here: (Regulation 52(2)(c)) | C.6.8 How will the negative impacts on the environment be mitigated or managed (as described in C 6.11 to the left? (Regulation 57(2)(c)) |
|---|---|
| <p>Example: Section C 6.4 Blasting. It is anticipated that no blasting will be required for the proposed mining operation.</p> | <p>Example: Should blasting be required, residents in close proximity of the borrow pit shall be notified in advance of such schedule.</p> |
| <p>1. Section C1.2: Topsoil: will be impacted upon and removed and stockpiled in construction site areas.</p> | <p>1 All topsoil will be removed and stockpiled separately in protected areas. Such soils will be used during the rehabilitation of the borrow pit.</p> |
| <p>3. Section C1.5: Animals, no threatened or red data species occur in the area. Livestock species occur and less grazing area will be available due to borrow pits</p> | <p>3. No red data threatened species were noted to occur on site. Livestock were noted grazing on the south western border of the site. The current status of the site is highly degraded and cannot be used for grazing purposes. This has resulted from previous mining activities and recently vegetation clearing for road construction.</p> |
| <p>4. Section 6.1: Air Quality: It is anticipated that the mining works are likely to contribute to increase in dust generation and emissions.</p> | <p>4. During operation and rehabilitation of the borrow pit, the following shall be applied to limit amount of dust generation.</p> <ul style="list-style-type: none"> • Mining activities are to be done at permitting weather to avoid excessive dust generation. • Vegetation clearing must be done at areas to be affected by the mining operations. • Dust suppression techniques including regular wetting of exposed soils surfaces is to be employed during construction and rehabilitation of the borrow pit. • Vehicle and machinery used for borrow operations will be kept in good order to |

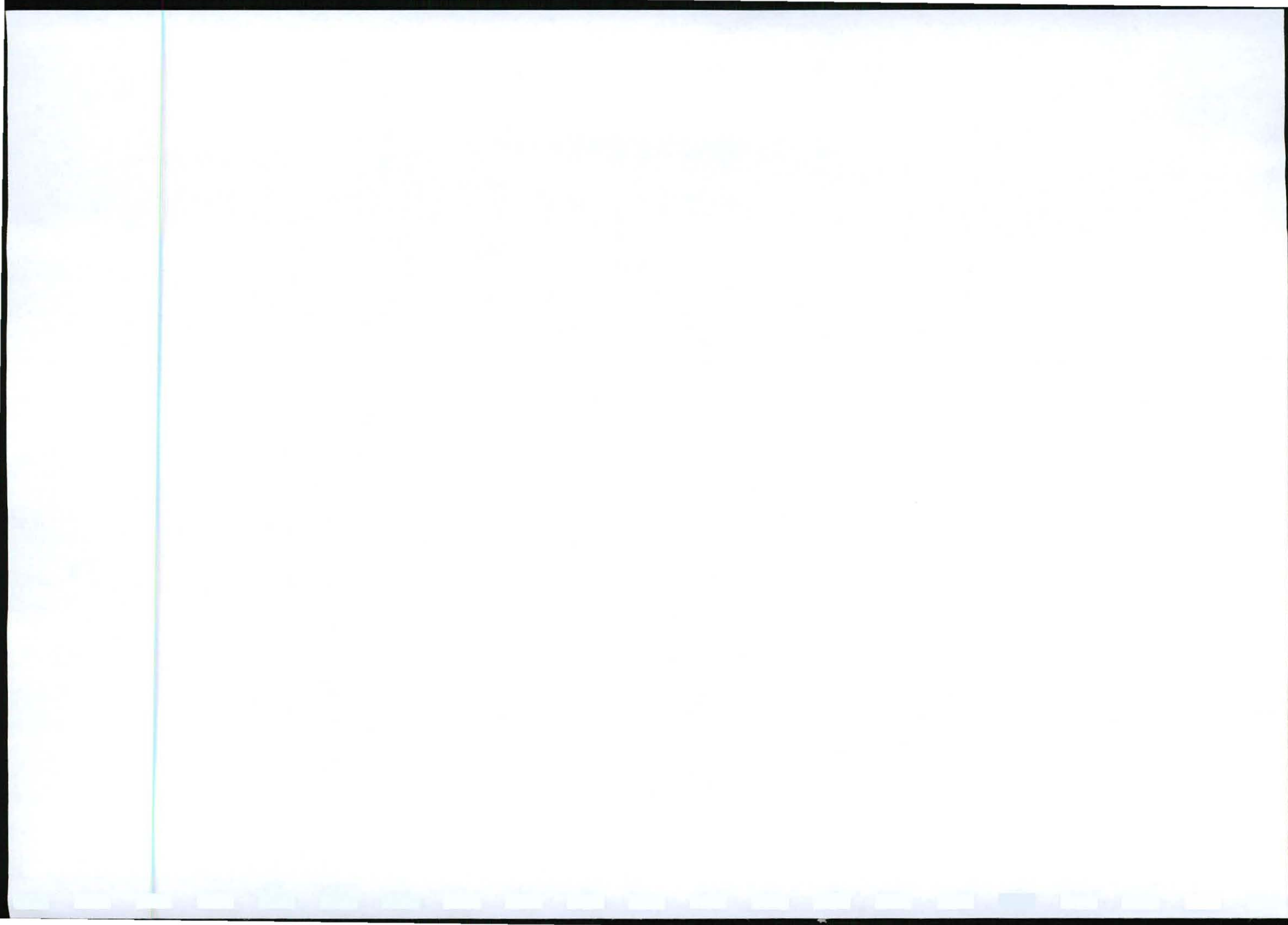




| | avoid excessive emissions. |
|--|---|
| 5. Section 6.3: Noise will be generated from vehicles and machinery. | 5 Borrow activities shall be limited to daylight hours. No borrow works will be carried out during noise sensitive hours. |
| 6. Section 6.5 Waste disposal. | 6 Refuse bins will be supplied for collection of waste generated on site. Such waste will be collected and disposed of at registered waste disposal site. EMP guidelines shall be followed during waste disposal. |
| 7. Section 6.6. Soil pollution and erosion impact will be minimal as EMPlan guidelines will be adhered to. | 7 Soil pollution and erosion will be managed according to the EMP guidelines. The following measures must be applied to prevent soil pollution and erosion: <ul style="list-style-type: none">• Care must be taken not to mix topsoil and subsoil during stripping.• Topsoil should not be stockpiled higher than 1.5 meters.• Topsoil should be stockpiled for the shortest period possible.• Should any topsoil become polluted the contractor must remove the polluted soil to the full depth of pollution. Removed polluted topsoil should be transported to a licensed landfill site.• Wind screening and storm water control should be undertaken to prevent topsoil loss from the site.• Vegetation should be retained where possible to avoid soil erosion.• Vegetation clearance should be phased to ensure that the minimum area of soil is exposed to potential erosion at any one time. Re-vegetation of disturbed surfaces should occur immediately after mining activities. |

C.7 Financial provision: (Regulation 54)

The amount that is necessary for the rehabilitation of damage caused by the operation, both sudden closures during the normal operation of the project and at final, planned closure will be estimated by the regional office of the DME, based on the information supplied in this document.



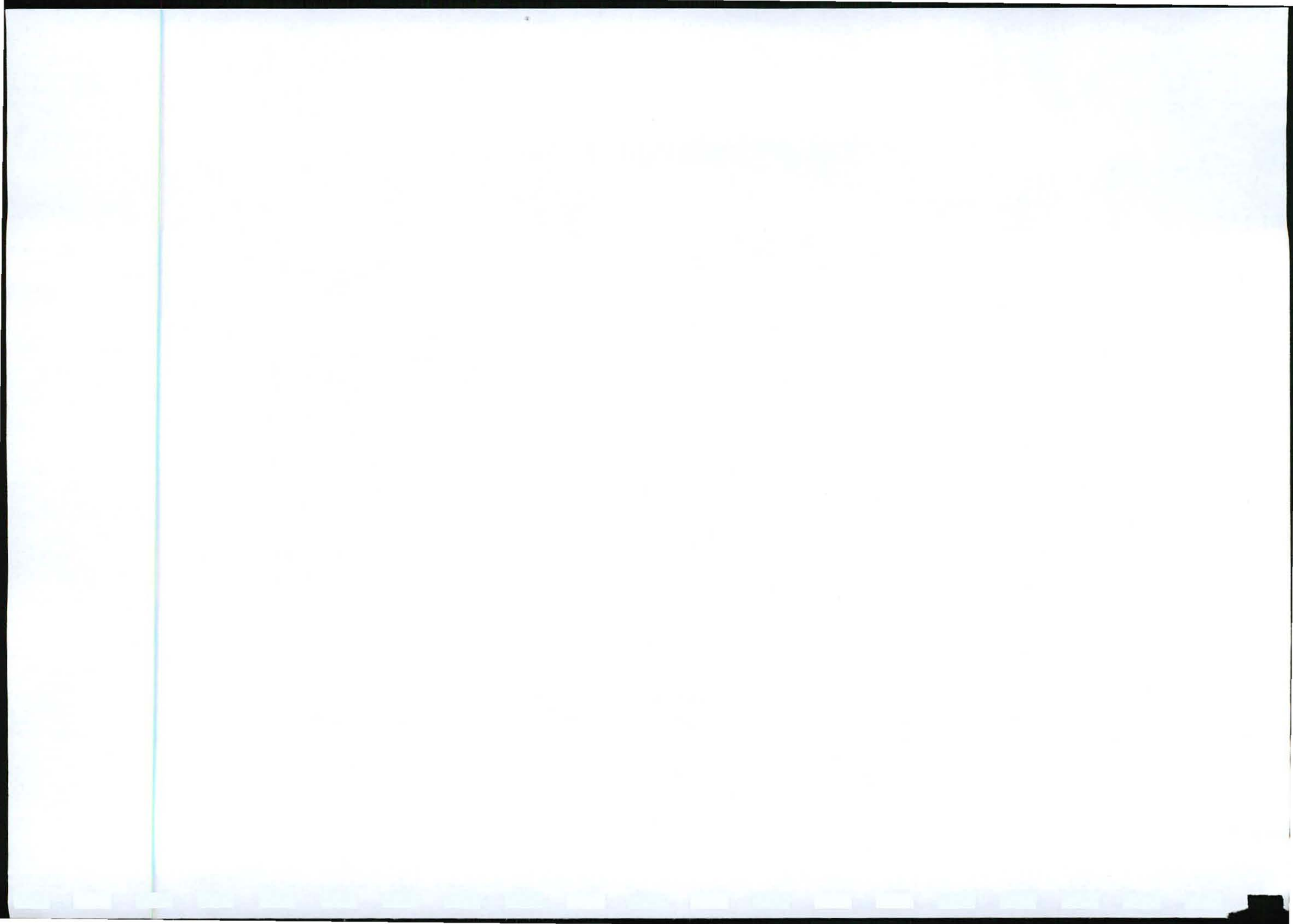


This amount will reflect how much it will cost the Department to rehabilitate the area disturbed in case of liquidation or abscondence.

| | | | | | |
|--|--|----------------|-------------------|----------------|-------------------|
| Enter the amount of financial provision required here: R10 000.00 (see quantum below) | | | | | |
| Determination or the quantum of financial guaranteed | | | | | |
| The extraction of constructing material from Borrow pit | | | | | |
| | | UNIT | NO OF UNIT | VOLUMES | AMOUNT |
| 1 | Machinery/ Equipment | | | | |
| | Bulldozer | R 200-00/hr | 1hrs/day | | R2,000.00 |
| 2 | Transportation/ Establishment of all equipment | R 4-00/km | | 2 | R 800.00 |
| 3 | Size of excavation | Less 1 hectare | 1 | 8,800 m3 | R2,000.00 |
| 4 | Cost of decommission of plant & associated infrastructure. | | | | R800.00 |
| 5 | Labor cost | | | | R1,000.00 |
| 6 | Cost of profiling disturbed areas | | | 20m3 | R200.00 |
| 7 | Cost of replacing Soil | | | 120m3 | R1,000.00 |
| 8 | Cost of surface preparation | | | 20m3 | R200.00 |
| 9 | Cost of re-vegetation | | | | R1,000.00 |
| | *Hydro seeding | | | | |
| 10 | Aftercare and Maintenance | | | | R1,000.00 |
| | TOTAL | | | | R10,000.00 |
| | | | | | |
| | | | | | |
| | TOTAL | | | | R10,000.00 |

What method will be used to furnish DME with this financial provision?

| | |
|---|--|
| Cash deposit | |
| Bank guarantee | |
| Trust Fund | |
| Other: (specify) (Note: other methods must be approved by the Minister) | |





The standard formats for each of these types of guarantees are available from your regional office of the DMR.

C.8.1 Monitoring and performance assessment.

Regulation 55 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) clearly describes the process and procedure as well as requirements for monitoring and auditing of the performance of this plan to adequately address environmental impacts from the operation. The following information must be provided:

| |
|---|
| C.8.2 Please describe how the adequacy of this programme will be assessed and how any inadequacies will be addressed. (Regulations 55(1) and 52(2)(e)) |
|---|

| |
|---|
| <i>Example: I will, on a bi-monthly basis, check every aspect of my operation against the prescriptions given in Section F of this document and, if I find that certain aspects are not addressed or impacts on the environment are not mitigated properly, I will rectify the identified inadequacies immediately.</i> |
|---|

| |
|---|
| Site monitoring will continue on a monthly basis throughout operation, rehabilitation and closure of borrow pit. Every aspect of the operation will be checked against the prescriptions given in Section F of this document and, if any aspects are not addressed or impacts on the environment are not mitigated properly, the identified inadequacies will be immediately rectified. |
|---|

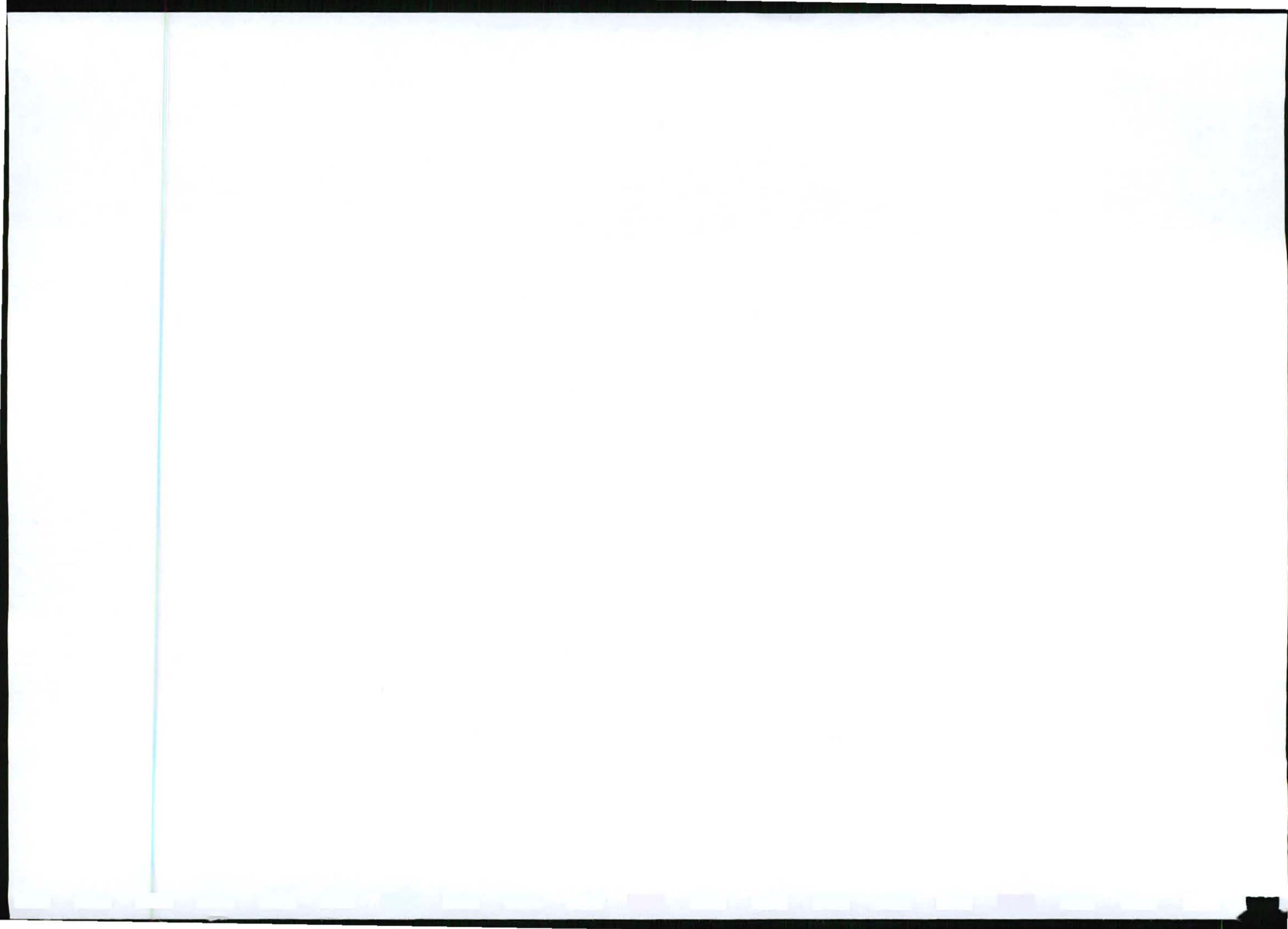
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|--|
| C.9 Closure and Environmental objectives: (Regulation 52(2)(f)) |
|--|

| |
|--|
| Clearly state the intended end use for the area prospected/mined after closing of operations |
|--|

| |
|--|
| The area will be rehabilitated back to an acceptable state or to similar conditions. |
|--|

| |
|---|
| C.9.1 Describe, in brief terms, what the environment will look like after a closure certificate has been obtained. |
|---|

| |
|---|
| The environment borrow pit area/site will be rehabilitate to a better state. Photographs taken before excavation took place for the borrow pit will be used as a bench mark (see Figure 3 below). |
|---|



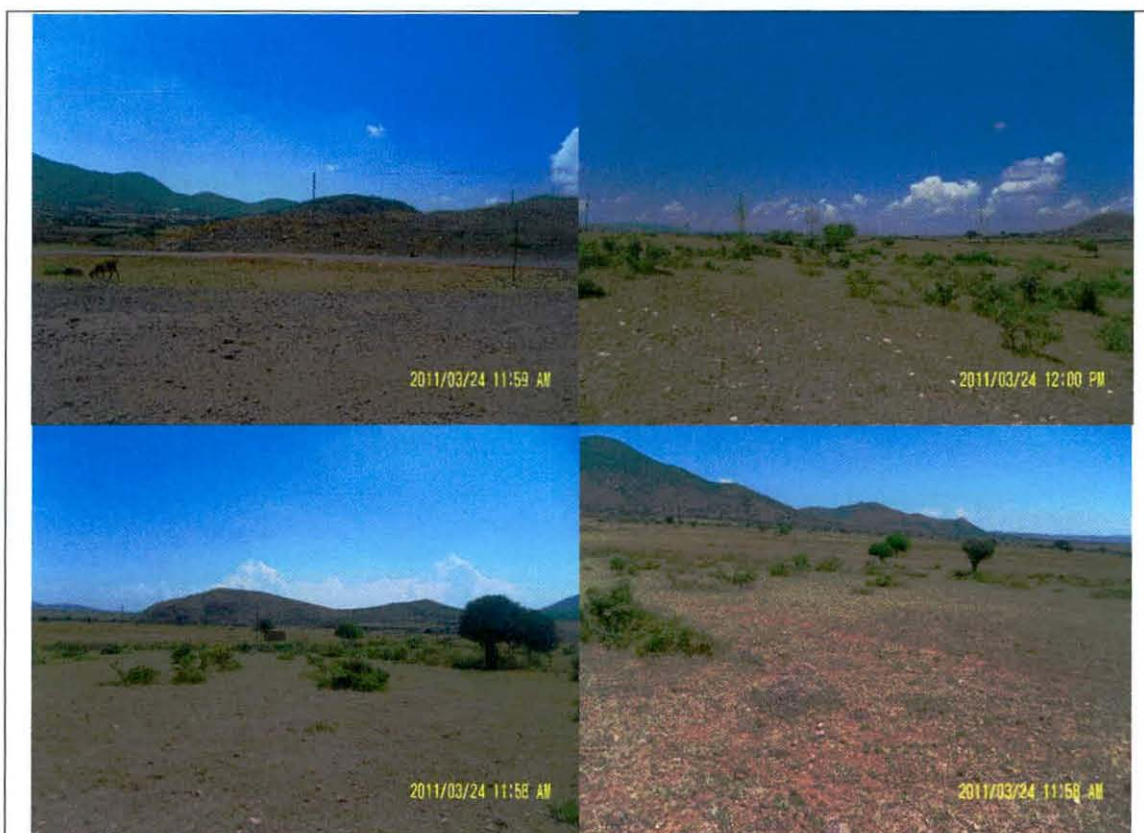


Figure 3: Photos showing the present condition/state of the site.

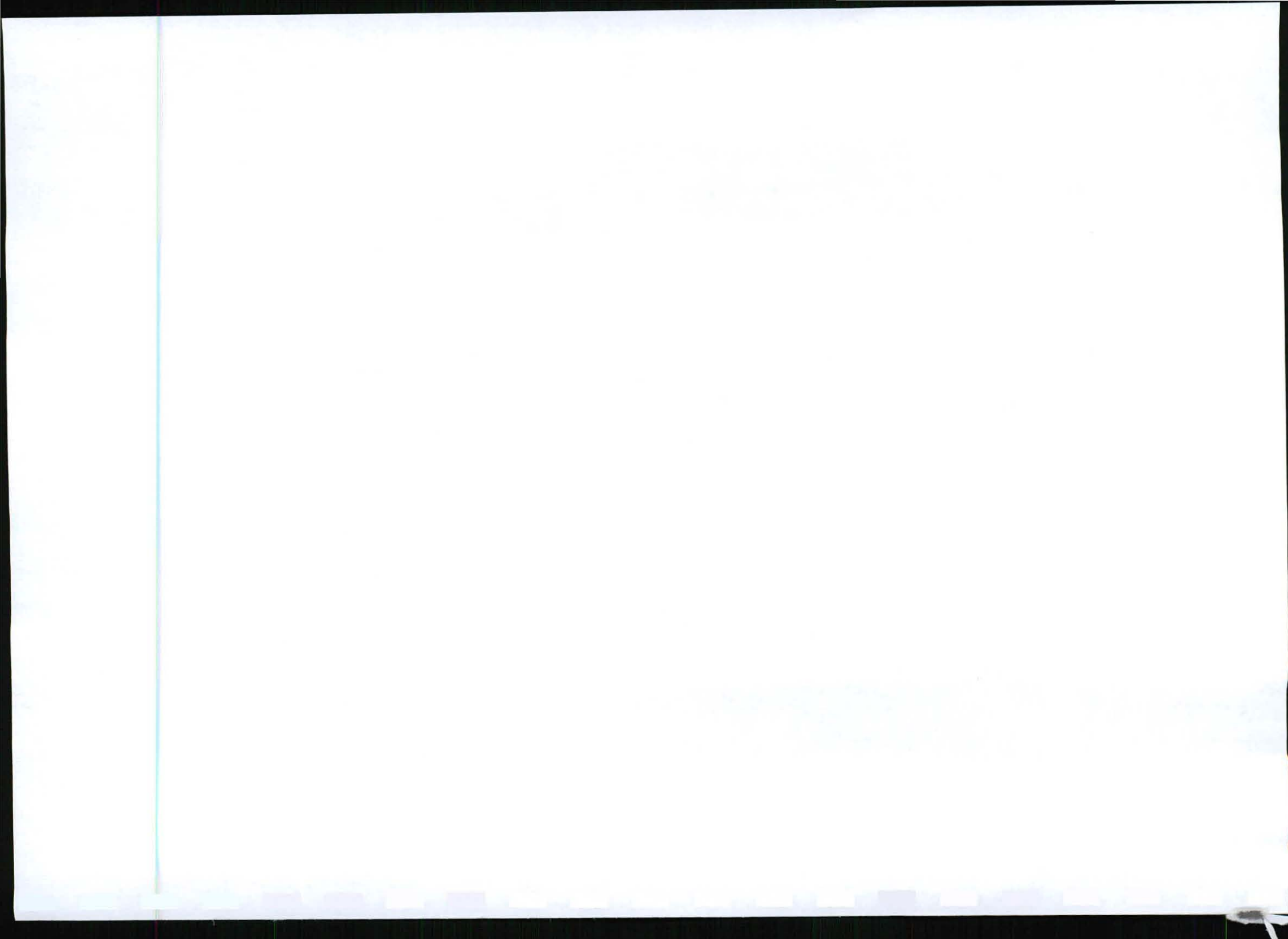
See also Appendix C for site photographs.

Note: The proposed end-state of your area must be consulted with interested and affected parties in terms of Regulation 52(2)(g). Details of the acceptability of the end-state must appear in the section below.

C 10 CLOSURE

Regulations 56 to 62 outline the entire process of mine closure, and these are copied in Section F of this document, both as a guide to applicants on the process to be followed for mine closure, and also to address the legal responsibility of the applicant with regard to the proper closure of his operation. In terms of Section 37 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), the holder of a permit is liable for any and all environmental damage or degradation emanating from his/her operation, until a closure certificate is issued in terms of Section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

C.11 Public Participation: (Regulation 52(2)(g))





In terms of the above regulation consultation with interested and affected person or persons must take place prior to the approval of the environmental management plan. This regulation is quoted below for ease of reference.

"a record of the public participation undertaken and the results thereof"

- C 11.1** Any comments lodged by an interested and affected person or persons in terms of section 10(1)(b) of the Act, must be in writing and addressed to the relevant Regional Manager.
- C 11.2** Any objections lodged by an interested and affected person or persons against the application for a right or permit in terms of the Act, must set out clearly and concisely the facts upon which it is based and must be addressed to the relevant Regional Manager in writing.
- C 11.3** The Regional Manager must make known by way of publication in a local newspaper or at the office of the Regional Manager, that an application for a right or permit in terms of the Act has been received.

In the table below, please list the names of people or organisations likely to be influenced by the proposed operations (these might include neighbours, other water users, etc.) Kindly indicate how these people were consulted (eg. By letter or by phone) and provide proof of that consultation. What were the main concerns/ objections raised by the interested and affected parties to the proposed operation?

| Name of Interested/ affected party | Contact details: Address & telephone number | How did consultation take place? | What was his/her main concern about the operation? |
|---|---|----------------------------------|--|
| Only the Landowner was consulted. No other people or organisations that are likely to be influenced by the proposed operations were identified. | | | |
| | | | |

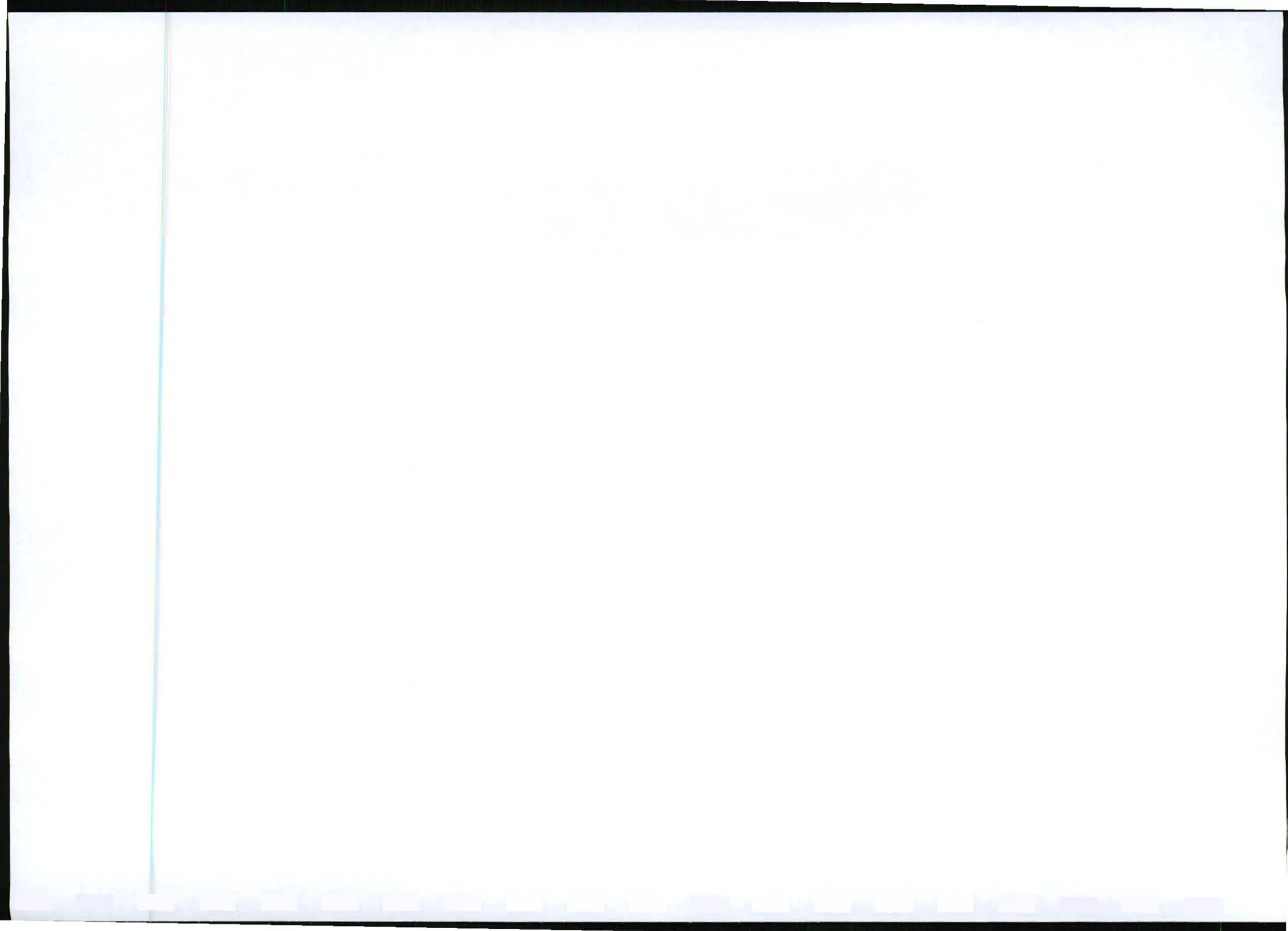
D SCORING OF EIA- FOR OFFICIAL USE ONLY

Instructions for officials:

In this table, complete the totals of each section indicated below and do the calculation. **Remember to first add all the values of sections C 1,2,4 and 5 and then to multiply it by the time factor in Section C 3**

Note that the value for the time factor element of the impact rating appears in Section C3. This is the total amount of time that the operation is expected to impact on the environment and all other factors are MULTIPLIED by this value. Compare the score (Impact rating) with the table below to help you make a decision on the total impact of the operation and also on the sufficiency of this programme to address all expected impacts from the operation on the environment.

D 1.1 CALCULATION TABLE





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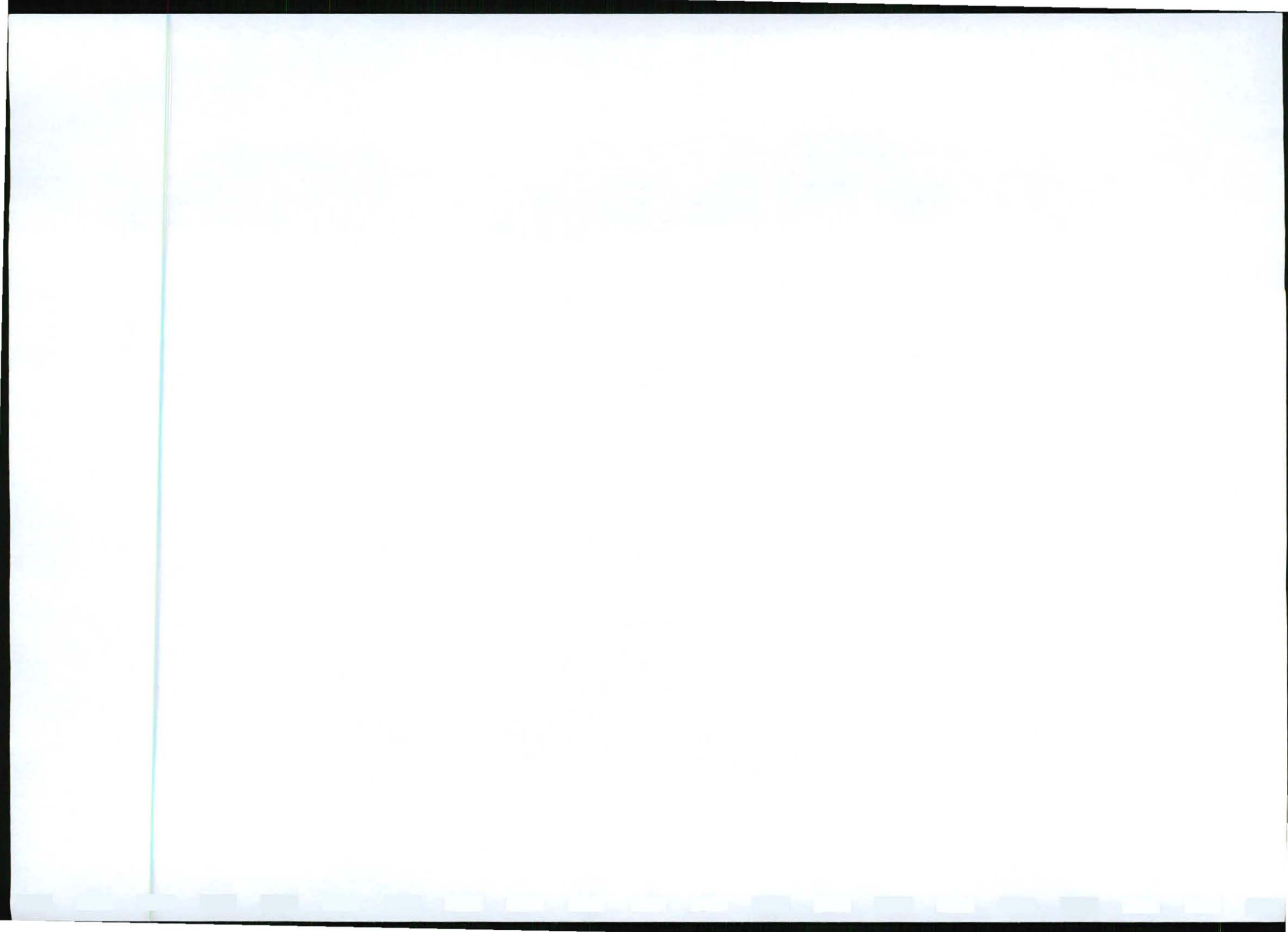
| | | | | | | | | | | | | |
|-------------------------|---|-------------------------|---|-------------------------|---|-------------------------|---|-----------------|---|----------------------------|---|-----------------------------|
| Section C 1 Total | + | Section C 2 Total | + | Section C 4 Total | + | Section C 5 Total | = | <i>Subtotal</i> | X | Time Factor Section C 3 | = | Score (Impact rating) |
| | + | | + | | + | | = | | X | | = | |

D 1.2 IMPACT RATING SCALE

| SCORE ATTAINED | IMPACT RATING | REMARKS |
|-------------------|------------------|---|
| 46 – 300 | Low | No additional objectives needed – this programme is sufficient |
| 301 – 800 | Medium | Some specific additional objectives to address focal areas of concern may be set. |
| 801 – 1160 | High | Major revision of Environmental Management Plan for adequacy and full revision of objectives. |

Additional Objectives:

Based on the information provided by the applicant and the regional office's assessment thereof, combined with the interpretation of the scoring and impact rating attained for the particular operation above, the Regional Manager of the regional office of the DME may now determine additional objectives /requirements for the mine owner/manager to comply with. *These measures will be specific and will address specific issues of concern that are not adequately covered in the standard version of this document.* These requirements are not listed here, but are specified under Section G of this document, so as to form part of the legally binding part of this Environmental Management Plan.



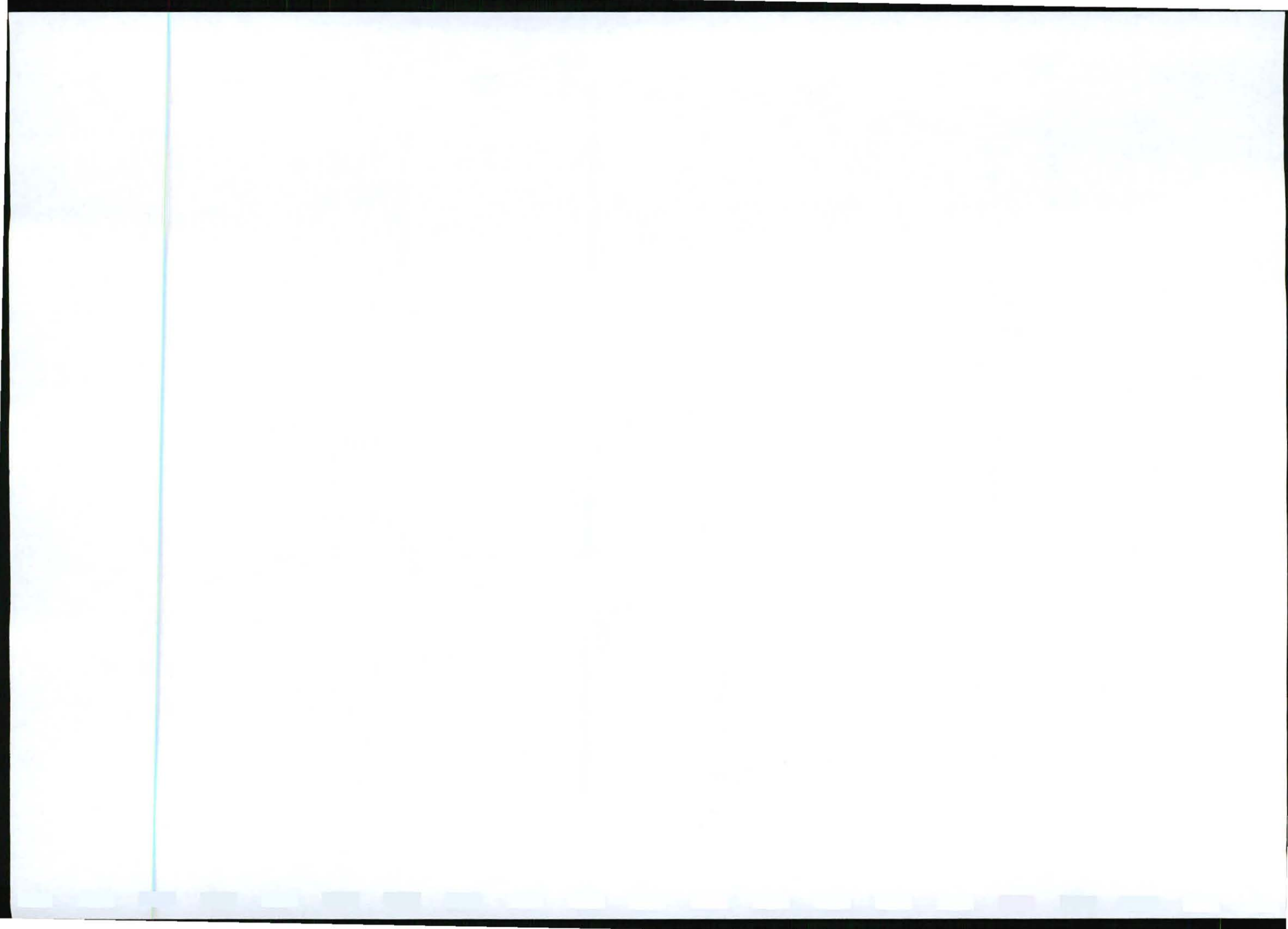


E UNDERTAKING:

I, Floyd Bink..... on behalf of the applicant: **Limpopo Department of Roads and Transport** for a mining permit hereby declare that the above information is true, complete and correct. I undertake to implement the measures as described in Sections F and G hereof. I understand that this undertaking is legally binding and that failure to give effect hereto will render me liable for prosecution in terms of Section 98 (b) and 99 (1)(g) of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002). I am also aware that the Regional Manager may, at any time but after consultation with me, make such changes to this plan as he/she may deem necessary.

Signed on this 28 day of June..... 2011 at Polokwane..... (Place)


.....
Signature of applicant





F. ENVIRONMENTAL MANAGEMENT PLAN:

INTRODUCTION

This Environmental Management Plan contains guidelines, operating procedures and rehabilitation/pollution control requirements which will be binding on the holder of the mining permit/ prospecting permission/ reconnaissance permission after approval of the Environmental Management Plan. It is essential that this portion be carefully studied, understood, implemented and adhered to at all times.

F 1 GENERAL REQUIREMENTS

F 1.1 MAPPING AND SETTING OUT

F 1.1.1 LAYOUT PLAN

- A copy of the layout plan as provided for in Regulation 2.2 must be available at the prospecting/mining site for scrutiny when required.
- The plan must be updated on a regular basis with regard to the actual progress of the establishment of surface infrastructure, mining operations and rehabilitation (a copy of the updated plan shall be forwarded to the Regional Manager on a regular basis).
- A final layout plan must be submitted at closure of the mine or when operations have ceased.

NOTE: Regulation 2.2 of the regulations promulgated in terms of the Act requires:

"An application contemplated in sub-regulation (1) must be accompanied by a plan that must contain –

- (a) *the co-ordinates of the land or area applied for;*
- (b) *the north point;*
- (c) *the scale to which the plan has been drawn;*
- (d) *the name, number and location of the land or area covered by the application; and*
- (e) *in relation to farm boundaries and surveyed points-*
 - (i) *the size and shape of the proposed area;*
 - (ii) *the boundaries of the land or area comprising the subject of the application concerned;*
 - (iii) *the layout of the proposed reconnaissance, prospecting, exploration, mining or production operations;*
 - (iv) *surface structures and servitudes;*
 - (v) *the topography of the land or area; "*

F 1.1.2 DEMARCATING THE MINING/ PROSPECTING AREA

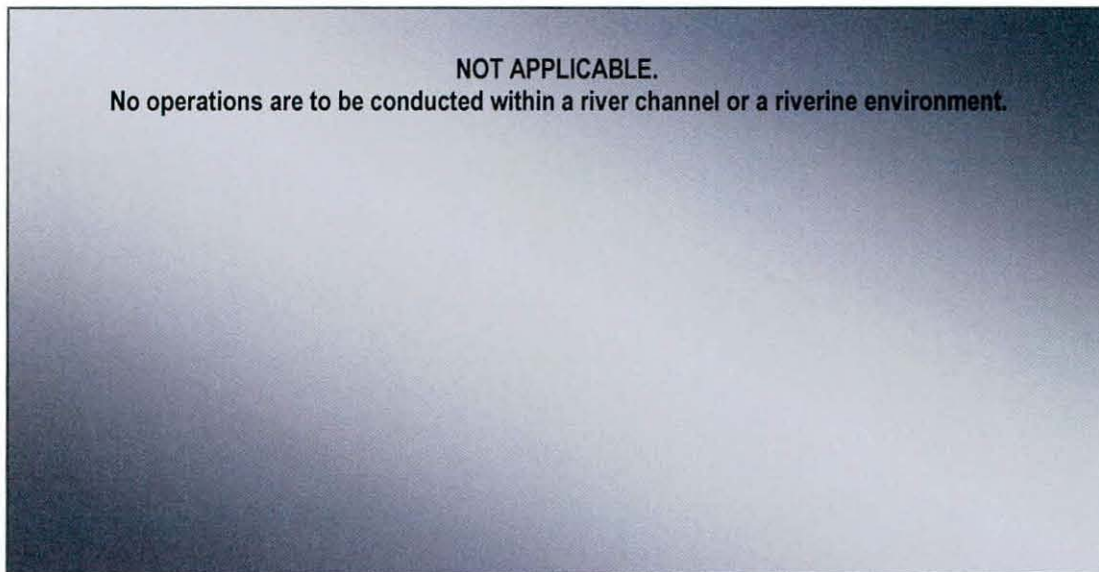
- The mining/ prospecting area must be clearly demarcated by means of beacons at its corners, and along its boundaries if there is no visibility between the corner beacons.





- Permanent beacons as indicated on the layout plan or as prescribed by the Regional Manager must be firmly erected and maintained in their correct position throughout the life of the operation.
- Mining/ prospecting and resultant operations shall only take place within this demarcated area.

F 1.1.3 DEMARCATING THE RIVER CHANNEL AND RIVERINE ENVIRONMENT

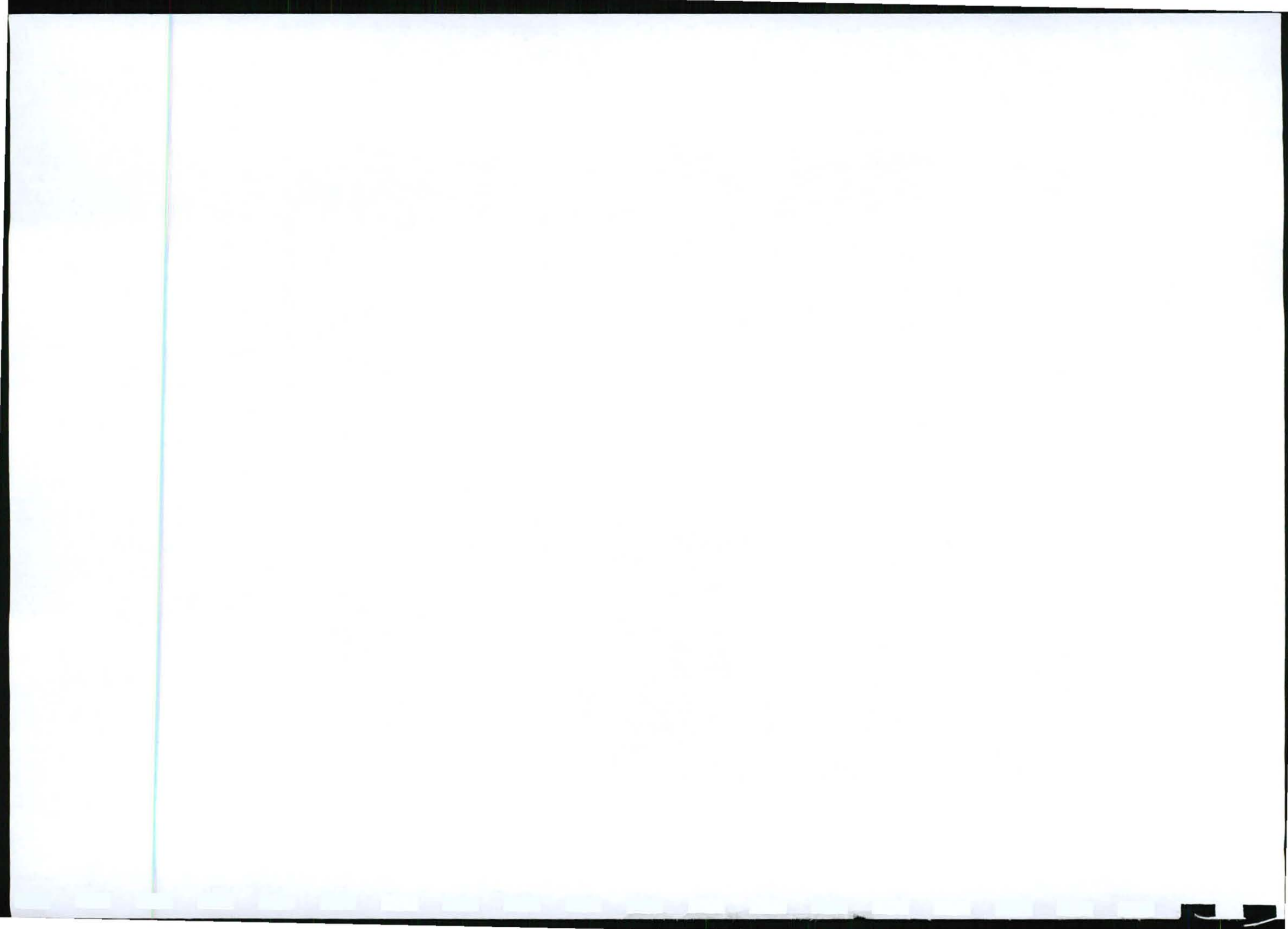


F 1.2 RESTRICTIONS ON MINING/ PROSPECTING

- On assessment of the application, the Regional Manager may prohibit the conducting of mining or prospecting operations in vegetated areas or over portions of these areas
- In the case of areas that are excluded from mining or prospecting, no operations shall be conducted within 5 m of these areas.

F 1.3 RESPONSIBILITY

- The environment affected by the mining/ prospecting operations shall be rehabilitated by the holder, as far as is practicable, to its natural state or to a predetermined and agreed to standard or land use which conforms with the concept of sustainable development. The affected environment shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals and that will not pollute the environment or lead to the degradation thereof.
- It is the responsibility of the holder of the mining permit/ prospecting right to ensure that the manager on the site and the employees are capable of complying with all





the statutory requirements which must be met in order to mine, which includes the implementation of this EMP.

- If operations are to be conducted in an area that has already been disturbed, the holder must reach specific agreement with the Regional Manager concerning the responsibilities imposed upon himself/herself pertaining to the rehabilitation of the area and the pollution control measures to be implemented.

F 2 INFRASTRUCTURAL REQUIREMENTS

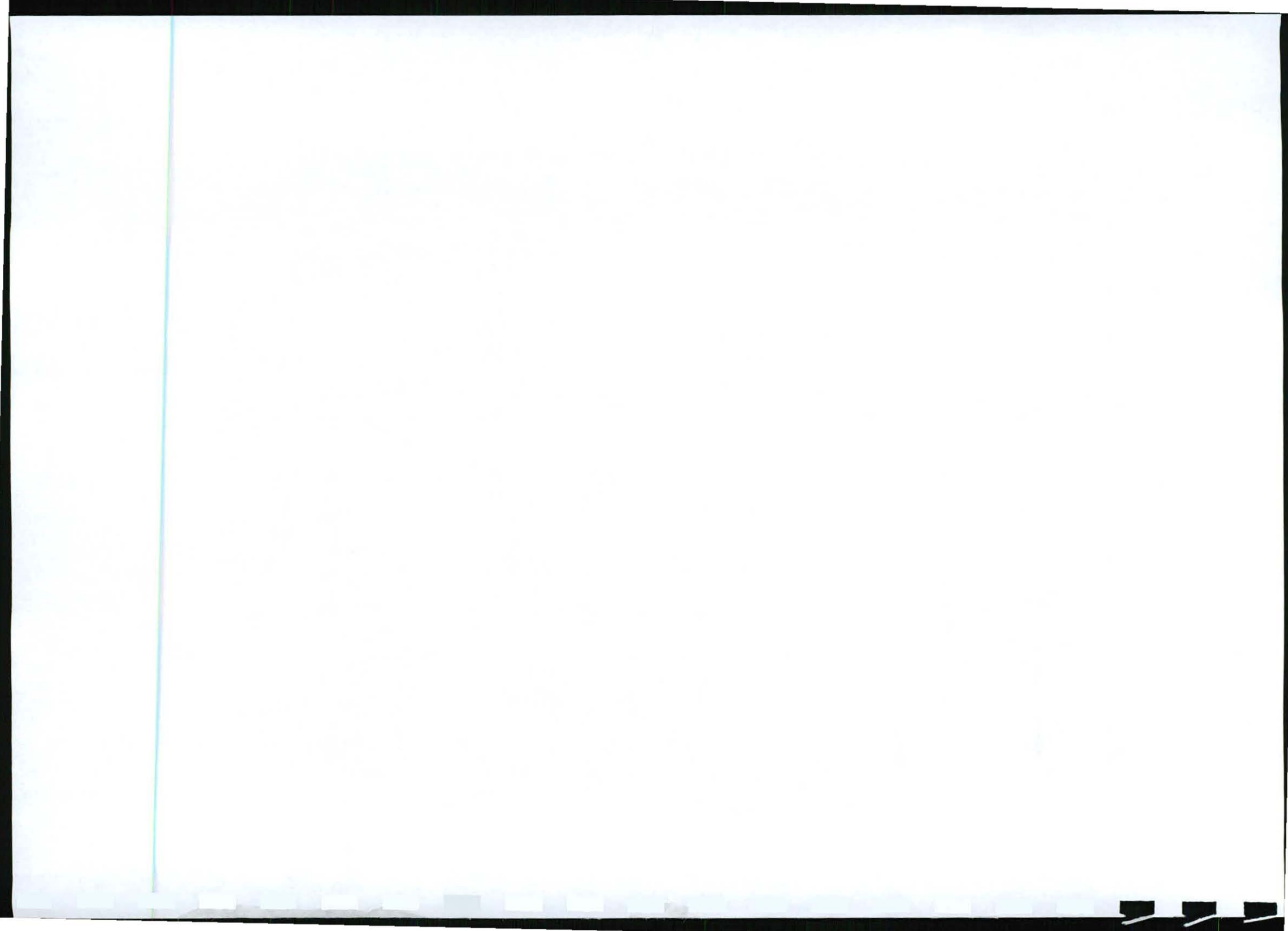
F 2.1 TOPSOIL

- Topsoil shall be removed from all areas where physical disturbance of the surface will occur.
- All available topsoil shall be removed after consultation with the Regional Manager prior to the commencement of any operations.
- The topsoil removed, shall be stored in a bund wall on the high ground side of the mining/prospecting area outside the 1:50 flood level within the boundaries of the mining area/ prospecting.
- Topsoil shall be kept separate from overburden and shall not be used for building or maintenance of access roads.
- The topsoil stored in the bund wall shall be adequately protected from being blown away or being eroded.

F 2.2 ACCESS TO THE SITE

F 2.2.1 Establishing access roads on the site

NOT APPLICABLE.
Access to the site already exists. No access routes will be constructed as existing routes will be utilized.





NOT APPLICABLE.
Access to the site already exists. No access routes will be constructed as existing routes will be utilized.

F 2.2.2 Maintenance of access roads

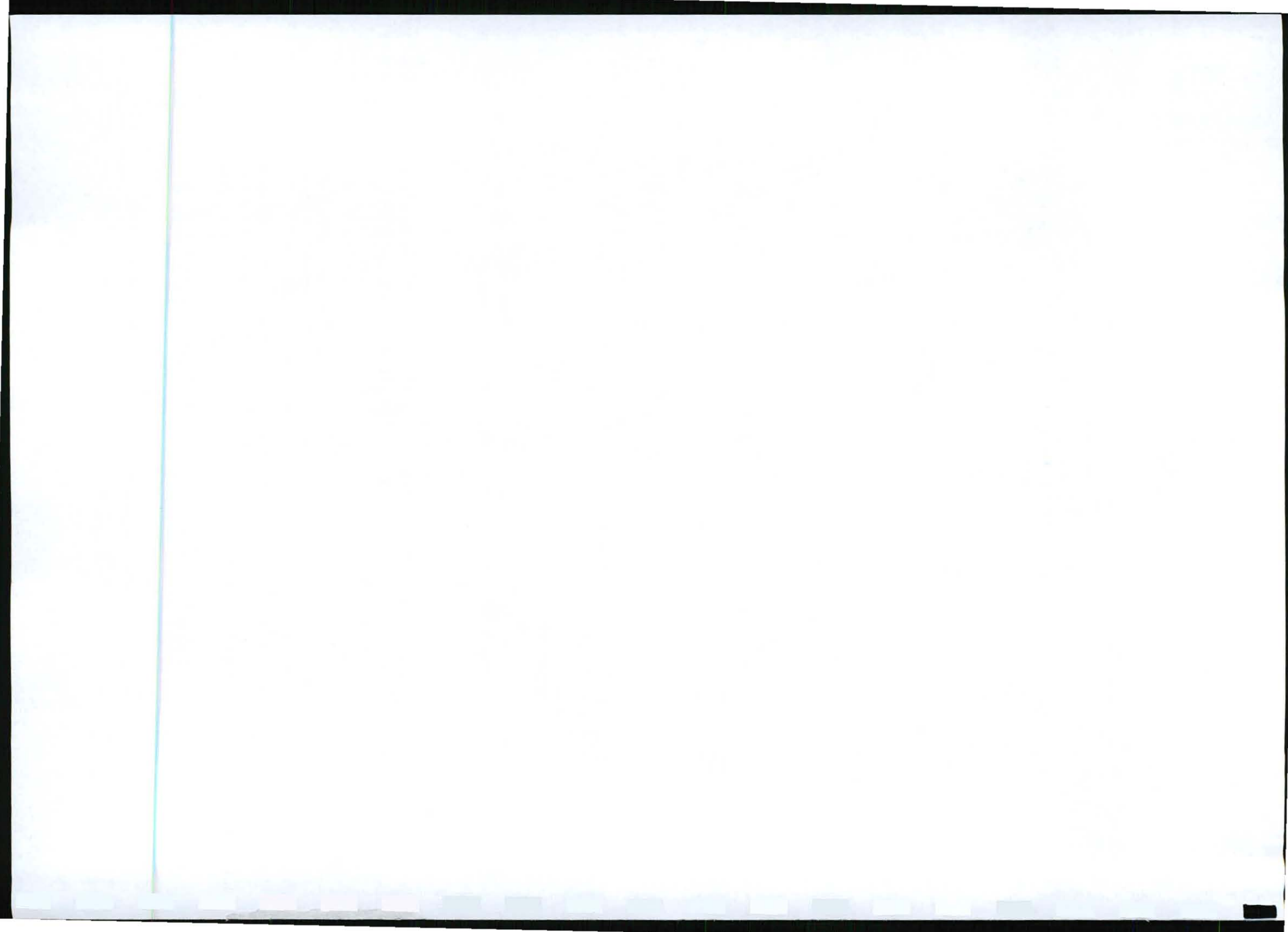
- In the case of dual or multiple use of access roads by other users, arrangements for multiple responsibility must be made with the other users. If not, the maintenance of access roads will be the responsibility of the holder of the mining permit/ prospecting right.
- Newly constructed access roads shall be adequately maintained so as to minimize dust, erosion or undue surface damage.

F 2.2.3 Dust control on the access and haul roads

- The liberation of dust into the surrounding environment shall be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. The speed of haul trucks and other vehicles must be strictly controlled to avoid dangerous conditions, excessive dust or excessive deterioration of the road being used.

F 2.2.4 Rehabilitation of access roads

- Whenever a mining permit/ prospecting right is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the permit or right, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.
- Any gate or fence erected by the holder which is not required by the landowner/tenant, shall be removed and the situation restored to the pre mining/ prospecting situation.
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilized (based on a soil analysis) to ensure the re-growth of vegetation. Imported road construction materials which may hamper re-growth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining/prospecting





operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification.

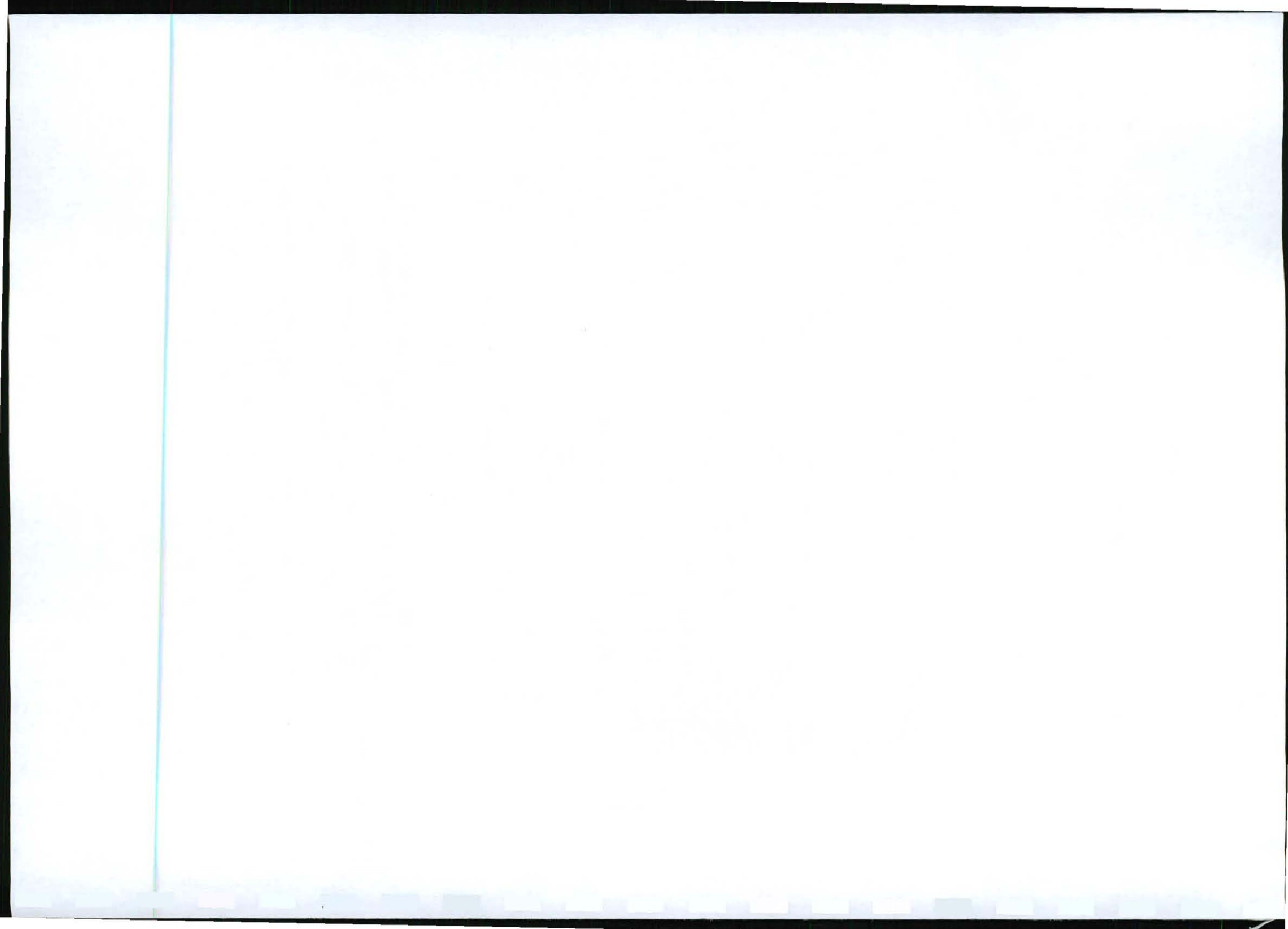
F 2.3 OFFICE/CAMP SITES

F 2.3.1 Establishing office / camp sites

NOT APPLICABLE.
No office/camp sites will be required for this operation. It is recommended that site camps established for the purpose of construction of the road be used.

F 2.3.2 Toilet facilities, waste water and refuse disposal

- As a minimum requirement, the holder of a mining permit/ prospecting right shall, at least, provide pit latrines for employees and proper hygiene measures shall be established.
- Chemical toilet facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution.
- The use of existing facilities must take place in consultation with the landowner/tenant.
- In cases where facilities are linked to existing sewerage structures, all necessary regulatory requirements concerning construction and maintenance should be adhered to.
- All effluent water from the camp washing facility shall be disposed of in a properly constructed French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole.
- Only domestic type wash water shall be allowed to enter this drain and any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.

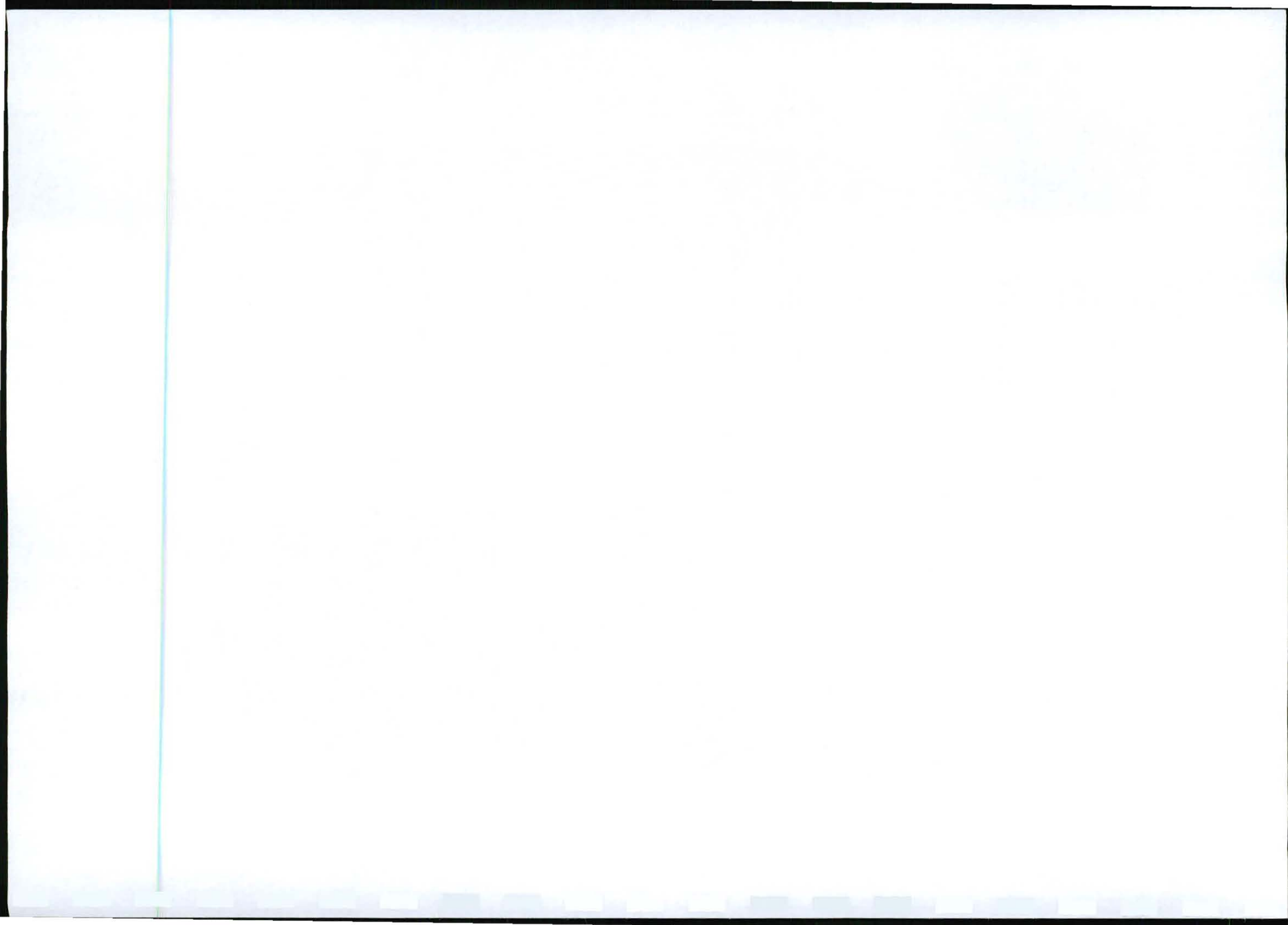




- Spills should be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and by disposing of them at a recognised facility.
- Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., shall be stored in a container at a collecting point and collected on a regular basis and disposed of at a recognised disposal facility. Specific precautions shall be taken to prevent refuse from being dumped on or in the vicinity of the camp site.
- Biodegradable refuse generated from the office/camp site, processing areas vehicle yard, storage area or any other area shall either be handled as indicated above or be buried in a pit excavated for that purpose and covered with layers of soil, incorporating a final 0,5 metre thick layer of topsoil (where practicable). Provision should be made for future subsidence of the covering.

F 2.3.3 Rehabilitation of the office/camp site

NOT APPLICABLE.
No office/camp site required.





NOT APPLICABLE.
No office/camp site required

F 2.4 VEHICLE MAINTENANCE YARD AND SECURED STORAGE AREAS

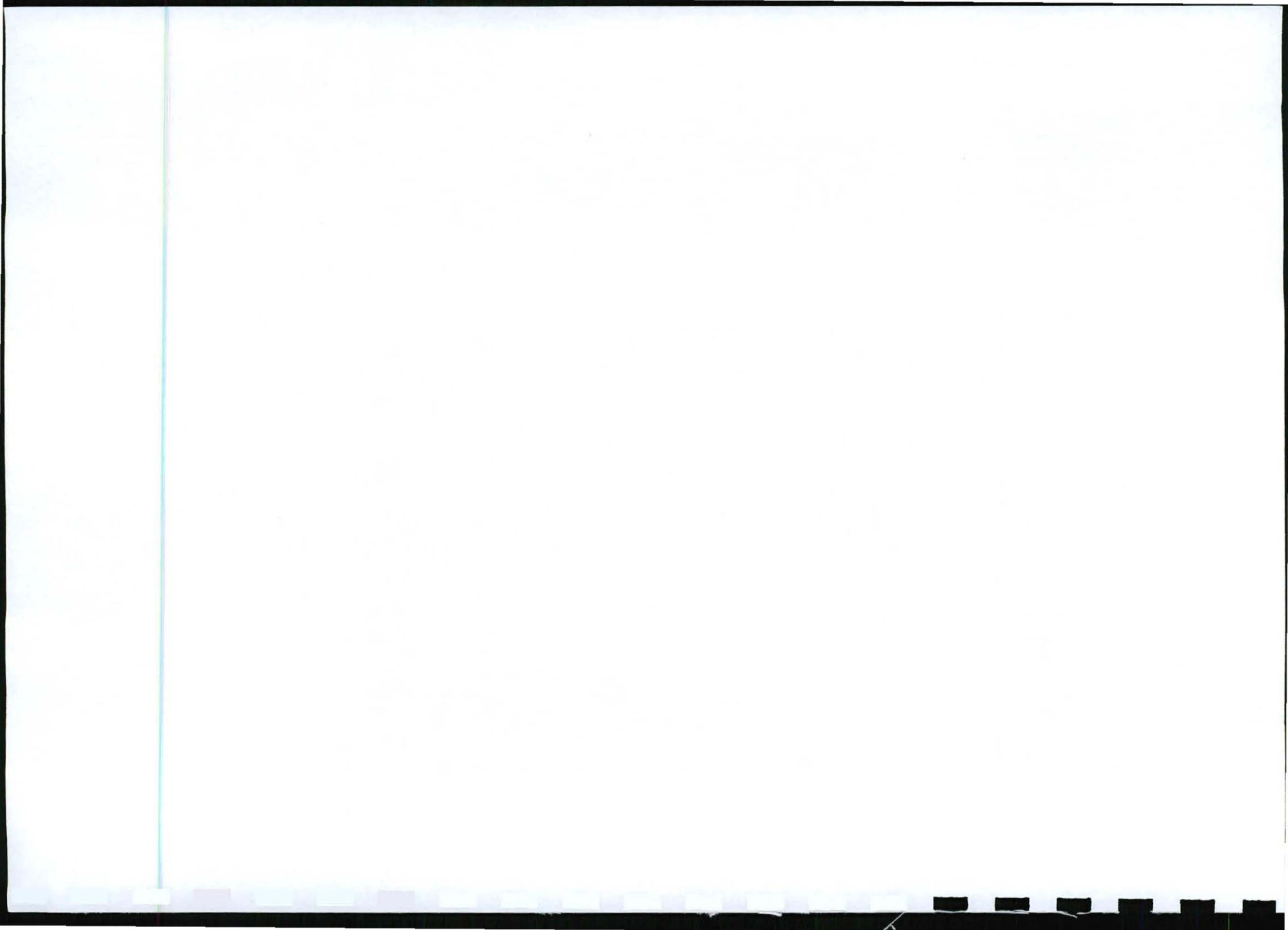
It is recommended that the office/site camp established for the construction of the bridge be used for such purposes.

F 2.4.1 Establishing the vehicle maintenance yard and secured storage areas

NOT APPLICABLE.
No vehicle maintenance yard and secured storage areas required. It is recommended that the office/site camp established for the construction of the road be used for such purposes.

F 2.4.3 Waste disposal

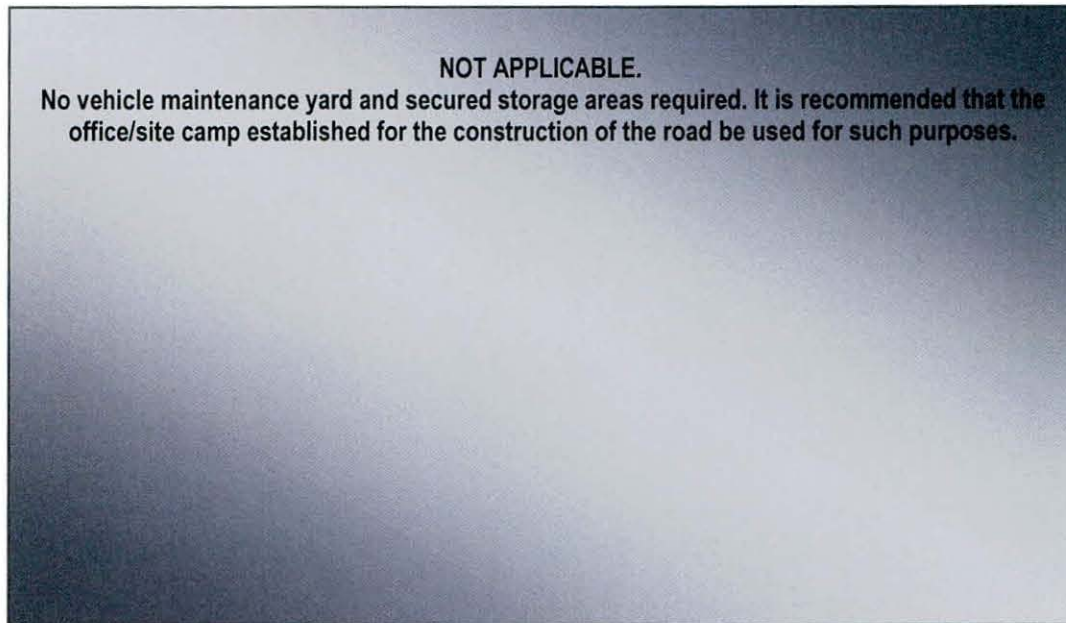
- Suitable covered receptacles shall be available at all times and conveniently placed for the disposal of waste.
- All used oils, grease or hydraulic fluids shall be placed therein and these receptacles will be removed from the site on a regular basis for disposal at a registered or licensed disposal facility.





- All spills should be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and by disposing of them at a recognised facility.

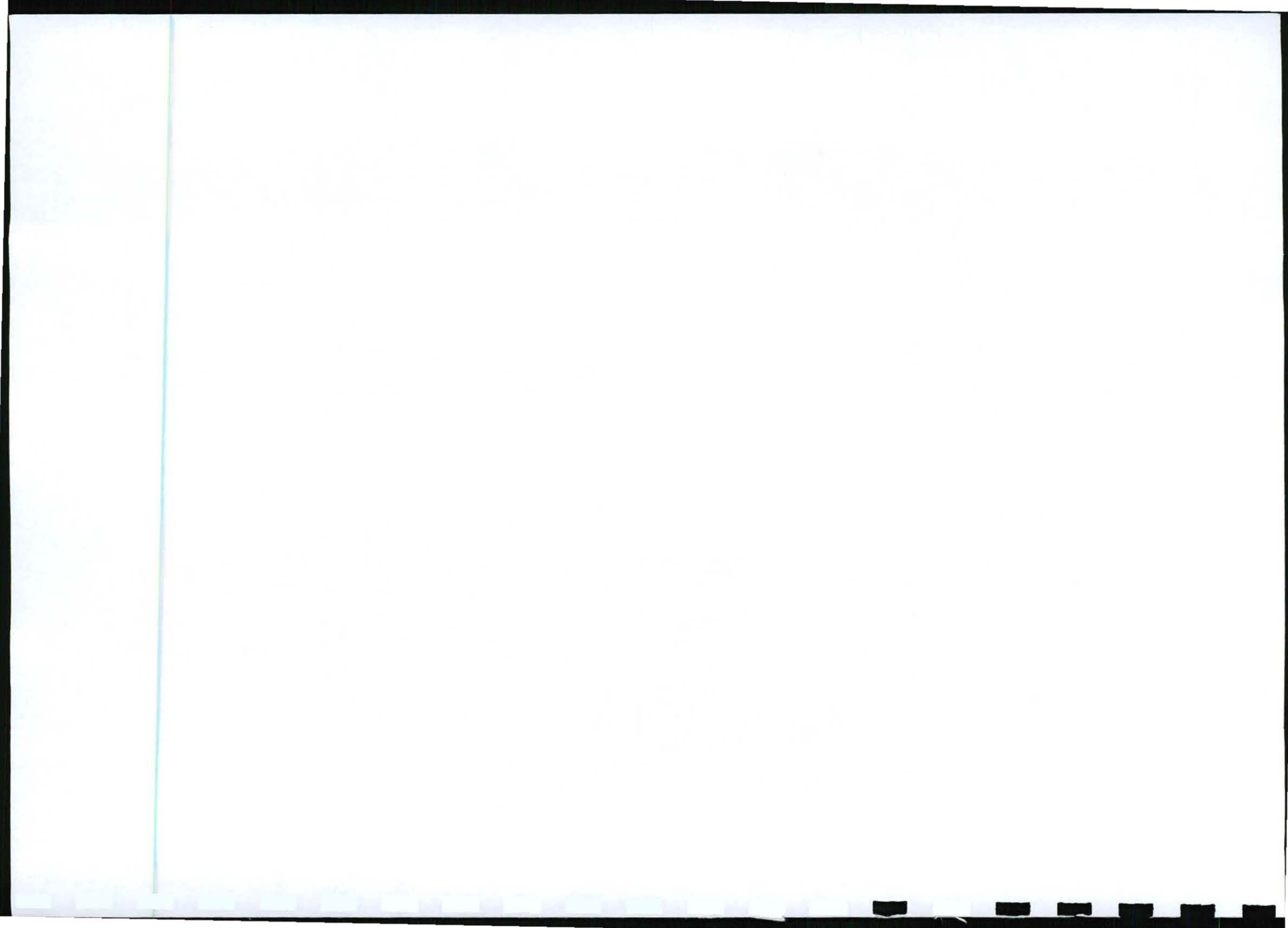
F 2.4.4 Rehabilitation of vehicle maintenance yard and secured storages areas



F 3 OPERATING PROCEDURES IN THE MINING AREA

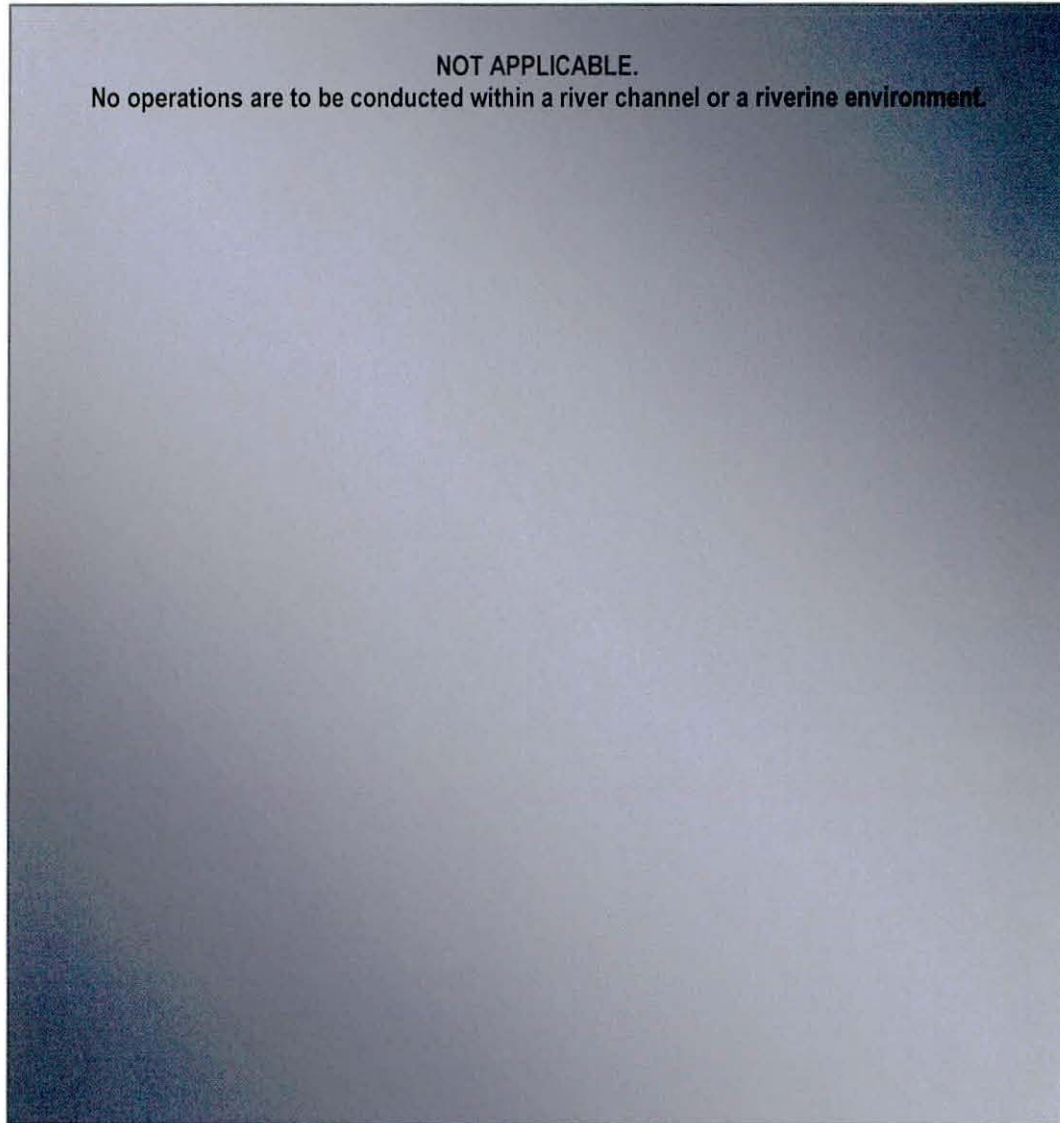
F 3.1 Limitations on mining/prospecting

- The mining of or prospecting for precious stones shall take place only within the approved demarcated mining or prospecting area.
- Mining/ prospecting may be limited to the areas indicated by the Regional Manager on assessment of the application.
- The holder of the mining permit/ prospecting right shall ensure that operations take place only in the demarcated areas as described in section F 1.1.2 above.
- Operations will not be conducted closer than one and a half times the height of the bank from the edge of the river channel and in such manner that the stability of the bank of the river is effected.
- Precautions shall also be taken to ensure that the bank of the river is adequately protected from scouring or erosion. Damage to the bank of the river caused by the operations, shall be rehabilitated to a condition acceptable to the Regional Manager at the expense of the holder.
- Restrictions on the disturbance of riverine vegetation in the form of reeds or wetland vegetation must be adhered to. The presence of these areas must be entered in Part of the programme and indicated on the layout plan.

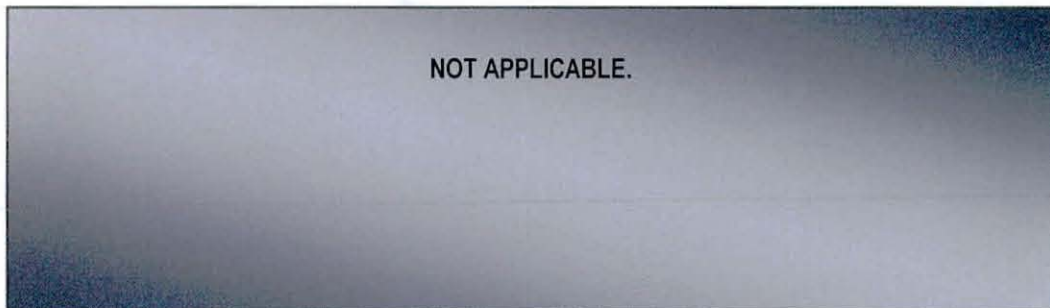


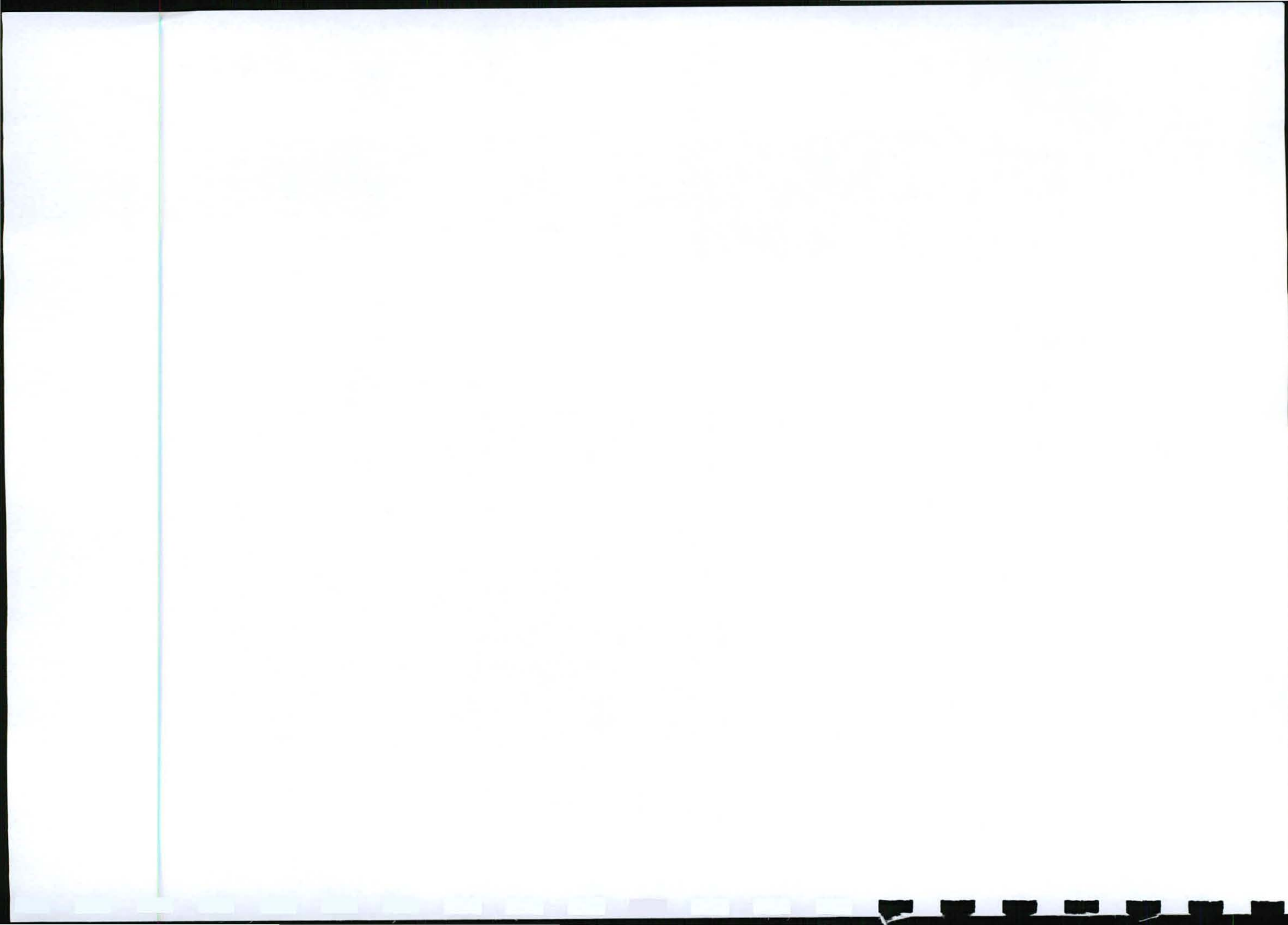


F 3.2 Mining/ prospecting operations within the riverine environment



F 3.2.1 Rehabilitation of access to river-bed







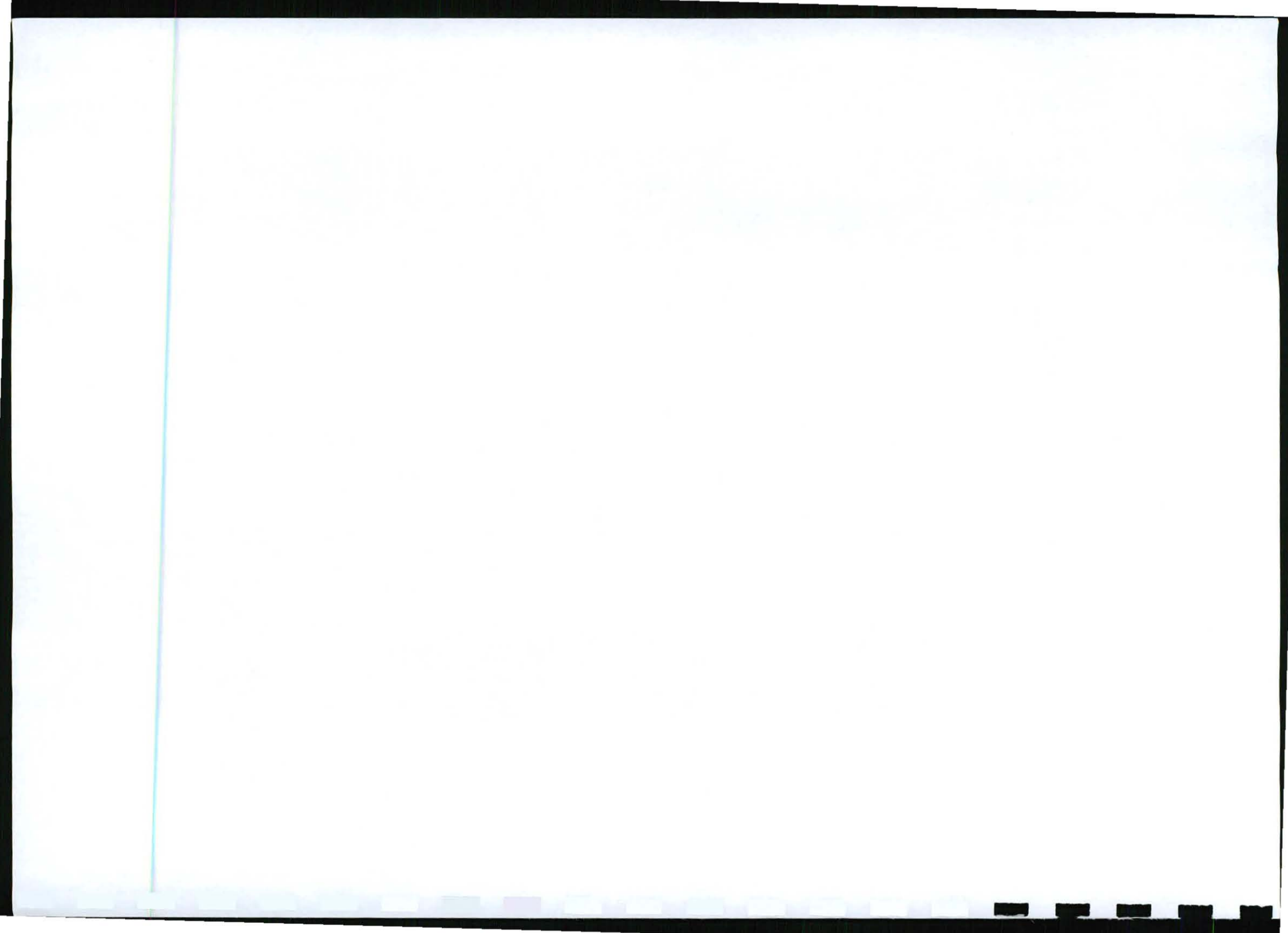
NOT APPLICABLE.

F 3.2.2 Rehabilitation of mining/prospecting area in the bed of the river

NOT APPLICABLE.

2. THE WATER USE LICENCE

NOT APPLICABLE.





NOT APPLICABLE.

F 3.3 EXCAVATIONS

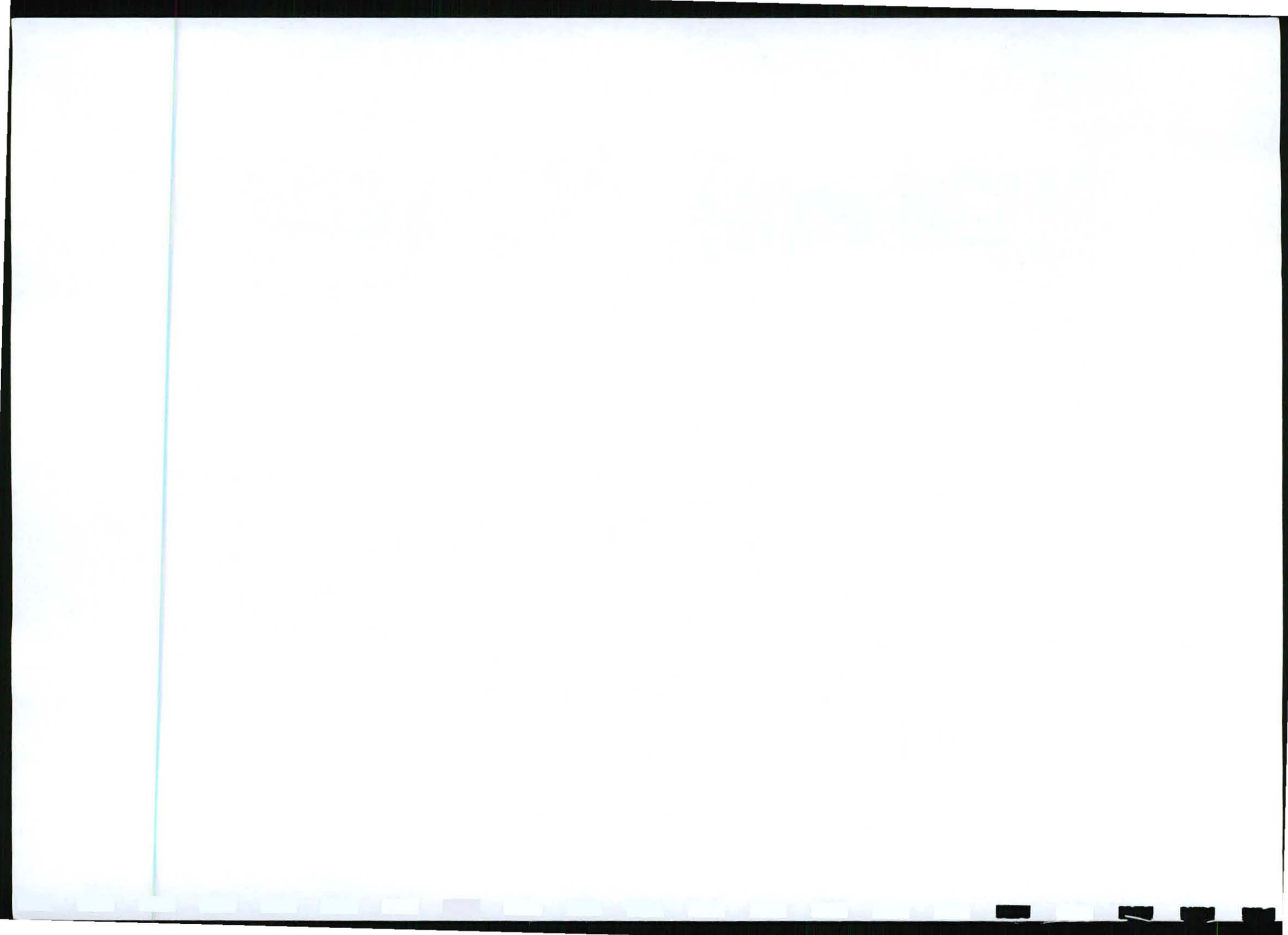
F 3.3.1 Establishing excavation areas

- Whenever any excavation is undertaken for the purpose of locating and/or extracting ore bodies of all types of minerals, including precious stone-bearing gravels, the following operating procedures shall be adhered to:
 - ❖ Topsoil shall, in all cases (except when excavations are made in the river-bed), be handled as described in F 2.1 above.
 - ❖ Excavations shall take place only within the approved demarcated mining/prospecting area.
 - ❖ Overburden rocks and coarse material shall be placed concurrently in the excavations or stored adjacent to the excavation, if practicable, to be used as backfill material once the ore or gravel has been excavated.
 - ❖ Trenches shall be backfilled immediately if no ore or precious stone-bearing gravel can be located.

F 3.3.2 Rehabilitation of excavation areas

The following operating procedures shall be adhered to:

- The excavated area must serve as a final depositing area for the placement of tailings during processing.
- Rocks and coarse material removed from the excavation must be dumped into the excavation simultaneously with the tailings.
- Waste, as described in paragraph F 2.3.2 above, will not be permitted to be deposited in the excavations.
- Once excavations have been refilled with overburden, rocks and coarse natural materials and profiled with acceptable contours and erosion control measures, the topsoil previously stored, shall be returned to its original depth over the area.

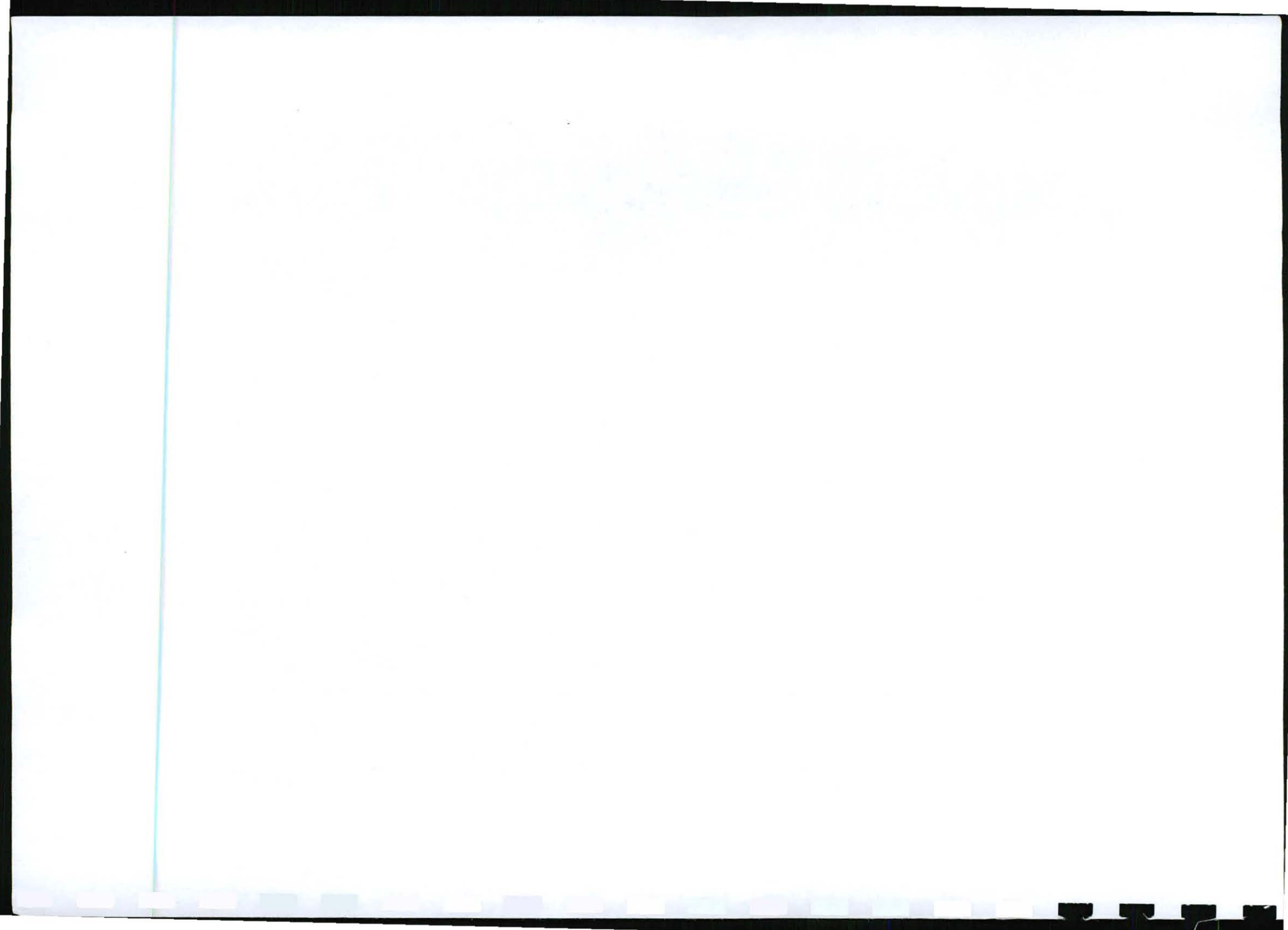




- The area shall be fertilised if necessary to allow vegetation to establish rapidly. The site shall be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining/ prospecting operation, be corrected and the area be seeded with a vegetation seed mix to his or her specification.

F 3.4 PROCESSING AREAS AND WASTE PILES (DUMPS)

NOT APPLICABLE.
No processing required.





NOT APPLICABLE.
No processing will be required.

F 3.5 TAILINGS DAM(S) (SLIMES DAM)

NOT APPLICABLE.
No tailings dam required for this operation.



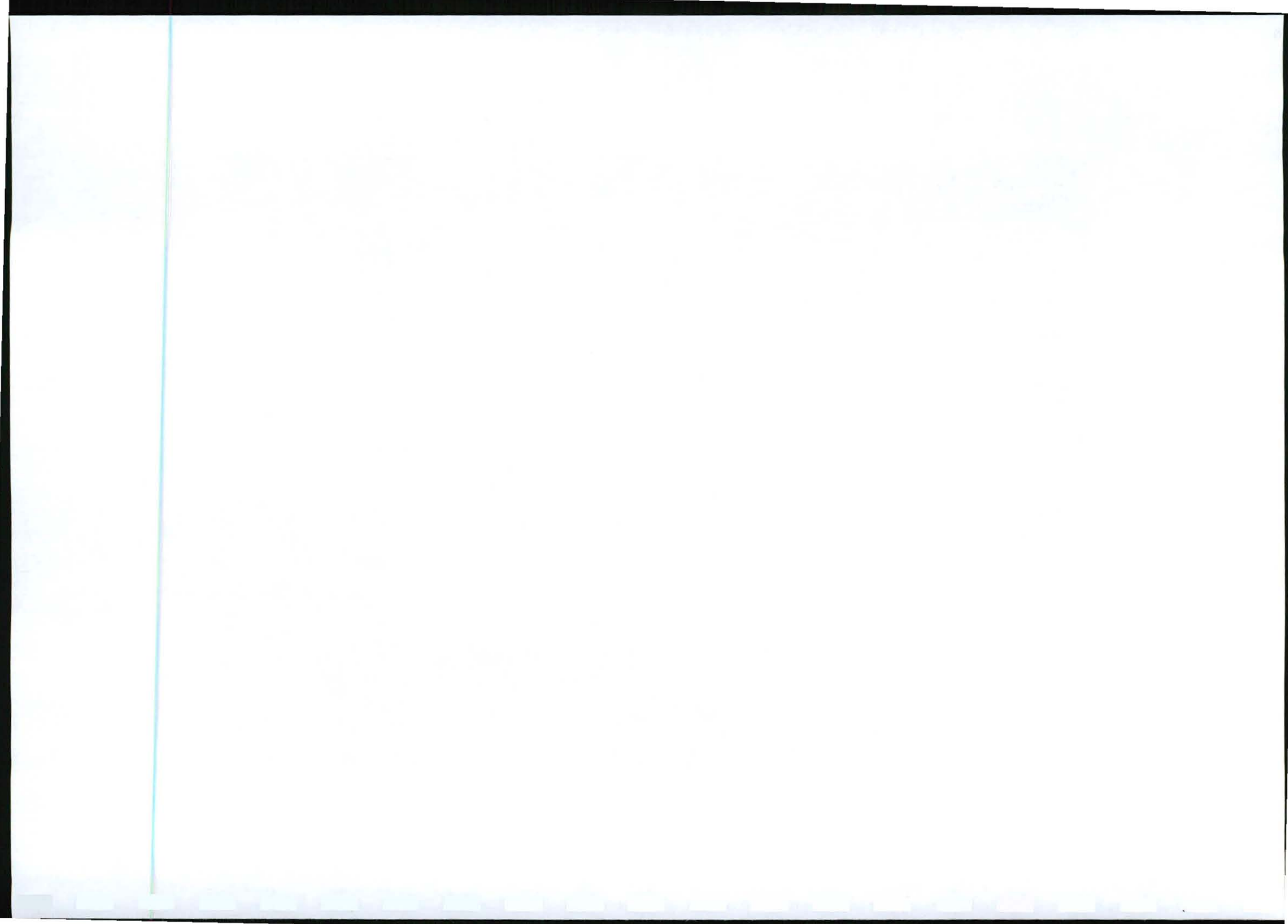
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NOT APPLICABLE.
No tailings dam required for this



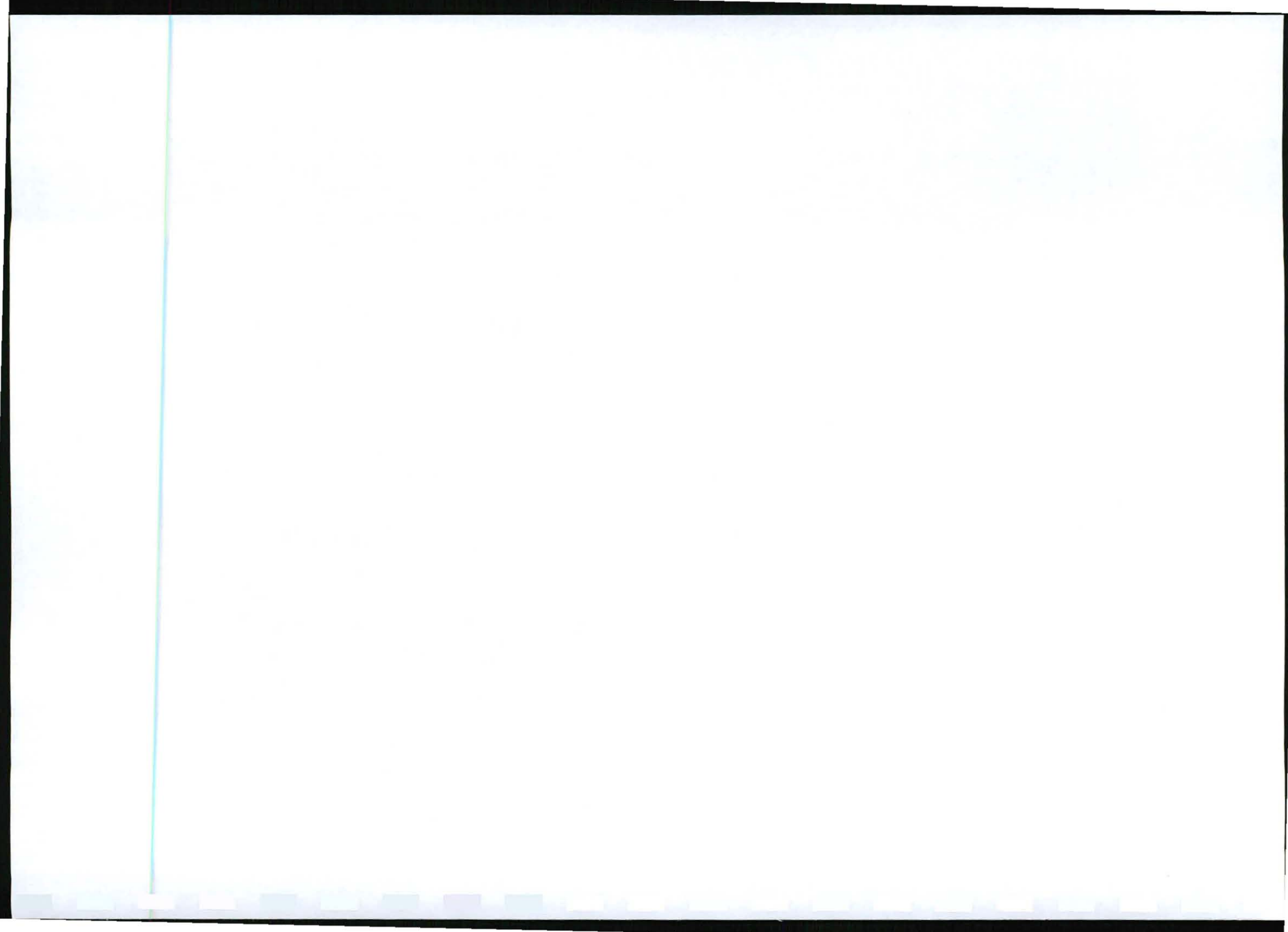
Shumani SHE Specialists

NOT APPLICABLE.
No tailings dam required for this operation.





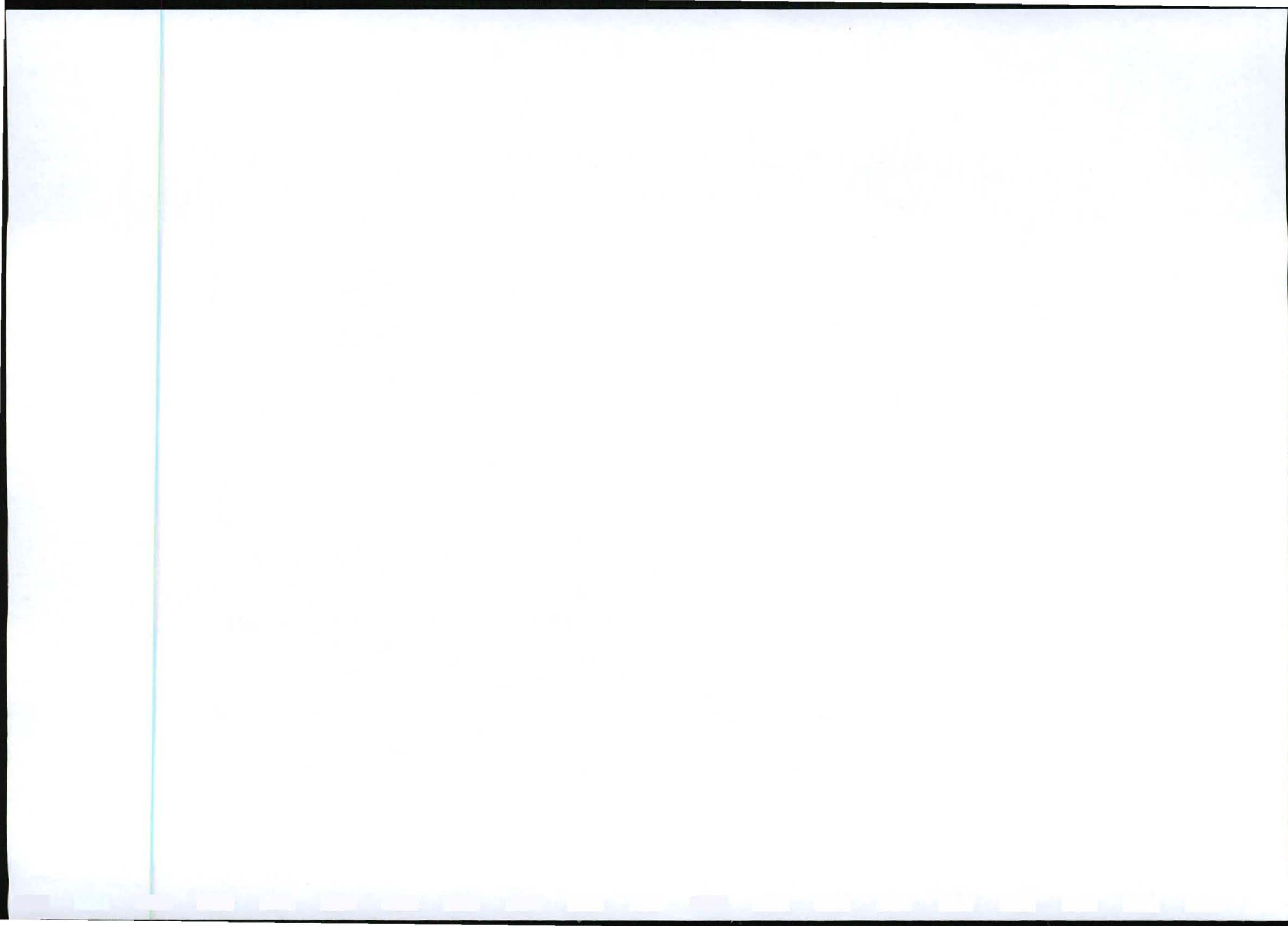
NOT APPLICABLE.
No tailings dam required for this operation.





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NOT APPLICABLE.
No tailings dam required for this operation.





F 3.6 FINAL REHABILITATION

- All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA)
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site.
- Final rehabilitation shall be completed within a period specified by the Regional Manager.

F 4 MONITORING AND REPORTING

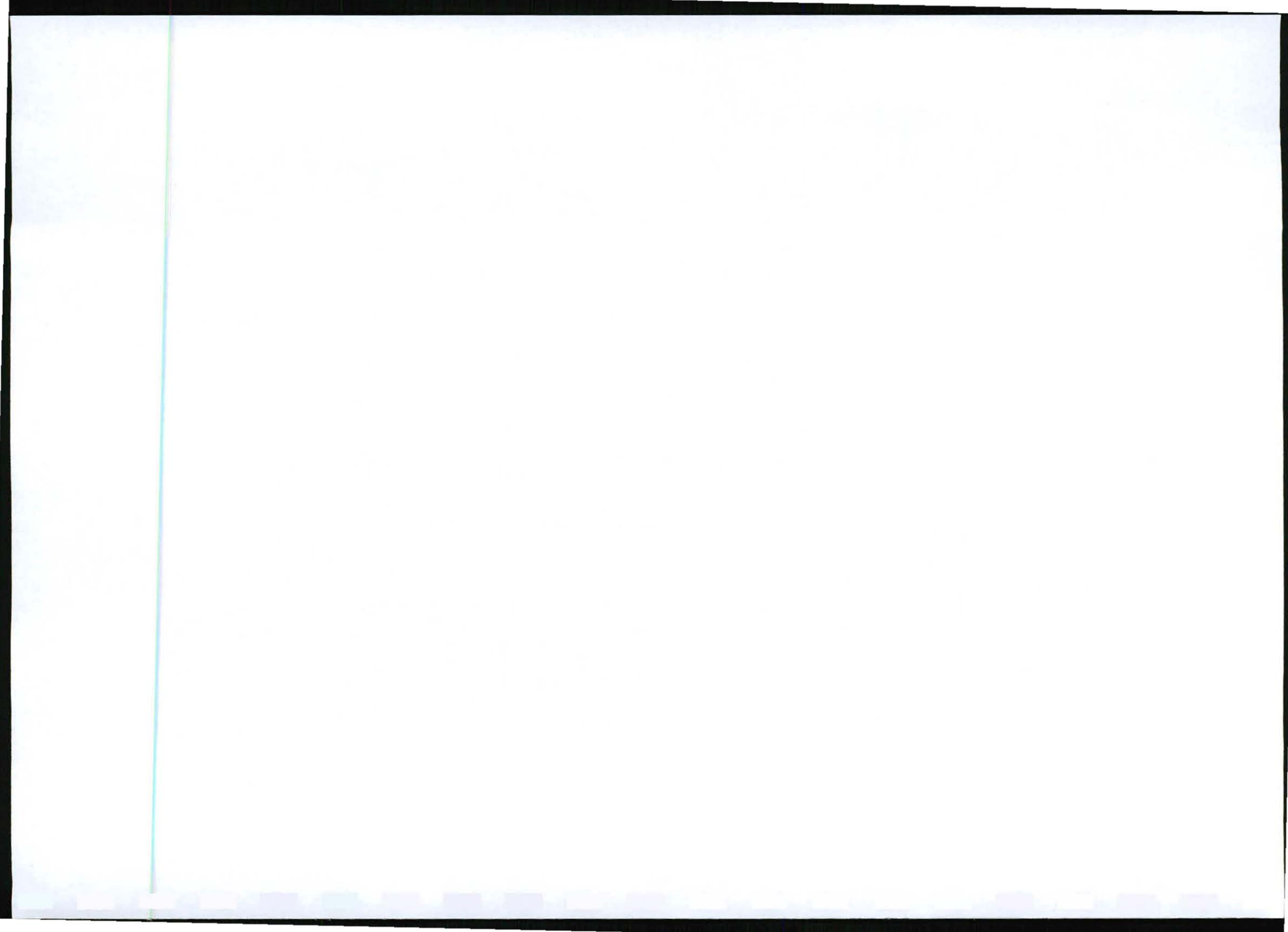
F 4.1 Inspections and monitoring

- Regular monitoring of all the environmental management measures and components shall be carried out by the holder of the prospecting right, mining permit or reconnaissance permission in order to ensure that the provisions of this programme are adhered to.
- Ongoing and regular reporting of the progress of implementation of this programme will be done.
- Various points of compliance will be identified with regard to the various impacts that the operations will have on the environment.
- Inspections and monitoring shall be carried out on both the implementation of the programme and the impact on plant and animal life.
- Visual inspections on erosion and physical pollution shall be carried out on a regular basis.

Regulation 55 promulgated in terms of the MPRDA requires the following:

Monitoring and performance assessments of environmental management programme or plan

- (1) *As part of the general terms and conditions for a prospecting right, mining right or mining permit and in order to ensure compliance with the approved environmental management programme or plan and to assess the continued appropriateness and adequacy of the environmental management programme or plan, the holder of such right must-*
 - (a) *conduct monitoring on a continuous basis;*
 - (b) *conduct performance assessments of the environmental management programme or plan as required; and*
 - (c) *compile and submit a performance assessment report to the Minister to demonstrate adherence to sub-regulation (b).*
- (2) *The frequency of performance assessment reporting shall be-*
 - (a) *in accordance with the period specified in the approved environmental management programme or plan, or, if not so specified;*
 - (b) *as agreed to in writing by the Minister; or*
 - (c) *biennially (every two years).*
- (3) *The performance assessment report, shall be in the format provided in guidelines that will from time to time be published by the Department and shall as a minimum contain-*

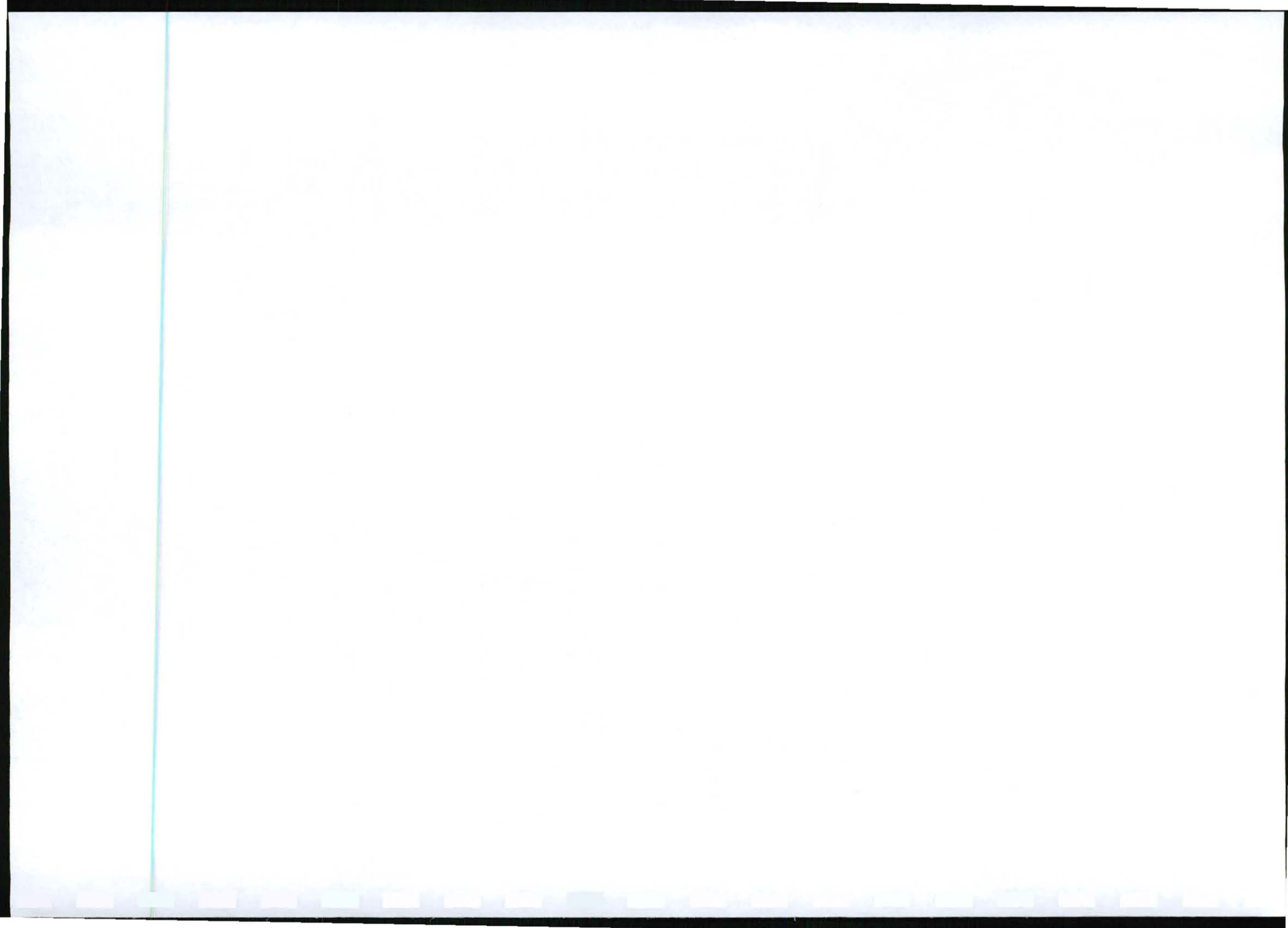




- (a) *information regarding the period that applies to the performance assessment;*
 - (b) *the scope of the assessment;*
 - (c) *the procedure used for the assessment;*
 - (d) *the interpreted information gained from monitoring the approved environmental management programme or plan;*
 - (e) *the evaluation criteria used during the assessment;*
 - (f) *the results of the assessment; and*
 - (g) *recommendations on how and when deficiencies that are identified and/or aspects of non-compliance will be rectified.*
- (4) *The holder of a prospecting right, mining right or mining permit may appoint an independent qualified person(s) to conduct the performance assessment and compile the performance assessment report provided that no such appointment shall relieve the holder of the responsibilities in terms of these regulations.*
- (5) *Subject to section 30(2) of the Act, the performance assessment report submitted by the holder shall be made available by the Minister to any person on request.*
- (6) *If upon consideration by the Minister, the performance assessment executed by the holder is not satisfactory or the report submitted by the holder is found to be unacceptable, the holder must-*
- (a) *repeat the whole or relevant parts of the performance assessment and revise and resubmit the report; and/or*
 - (b) *submit relevant supporting information; and/or*
 - (c) *appoint an independent competent person(s) to conduct the whole or part of the performance assessment and to compile the report.*
- (7) *If a reasonable assessment indicates that the performance assessment cannot be executed satisfactorily by the holder or a competent person(s) appointed by the holder, the Minister may appoint an independent performance assessment person(s) to conduct such performance assessment. Such appointment and execution shall be for the cost of the holder.*
- (8) *When the holder of a prospecting right, mining right or mining permit intends closing such operation, a final performance assessment shall be conducted and a report submitted to the Minister to ensure that -*
- (a) *the requirements of the relevant legislation have been complied with;*
 - (b) *the closure objectives as described in the environmental management programme or plan have been met; and*
 - (c) *all residual environmental impacts resulting from the holder's operations have been identified and the risks of latent impacts which may occur have been identified, quantified and arrangements for the management thereof have been assessed.*
- (9) *The final performance assessment report shall either precede or accompany the application for a closure certificate in terms of the Act.*

F 4.2 Compliance reporting / submission of information

- Layout plans will be updated on a regular basis and updated copies will be submitted on a biennial basis to the Regional Manager
- Reports confirming compliance with various points identified in the environmental management programme will be submitted to the Regional Manager on a regular basis and as decided by the said manager.
- Any emergency or unforeseen impact will be reported as soon as possible.





- An assessment of environmental impacts that were not properly addressed or were unknown when the programme was compiled shall be carried out and added as a corrective action.

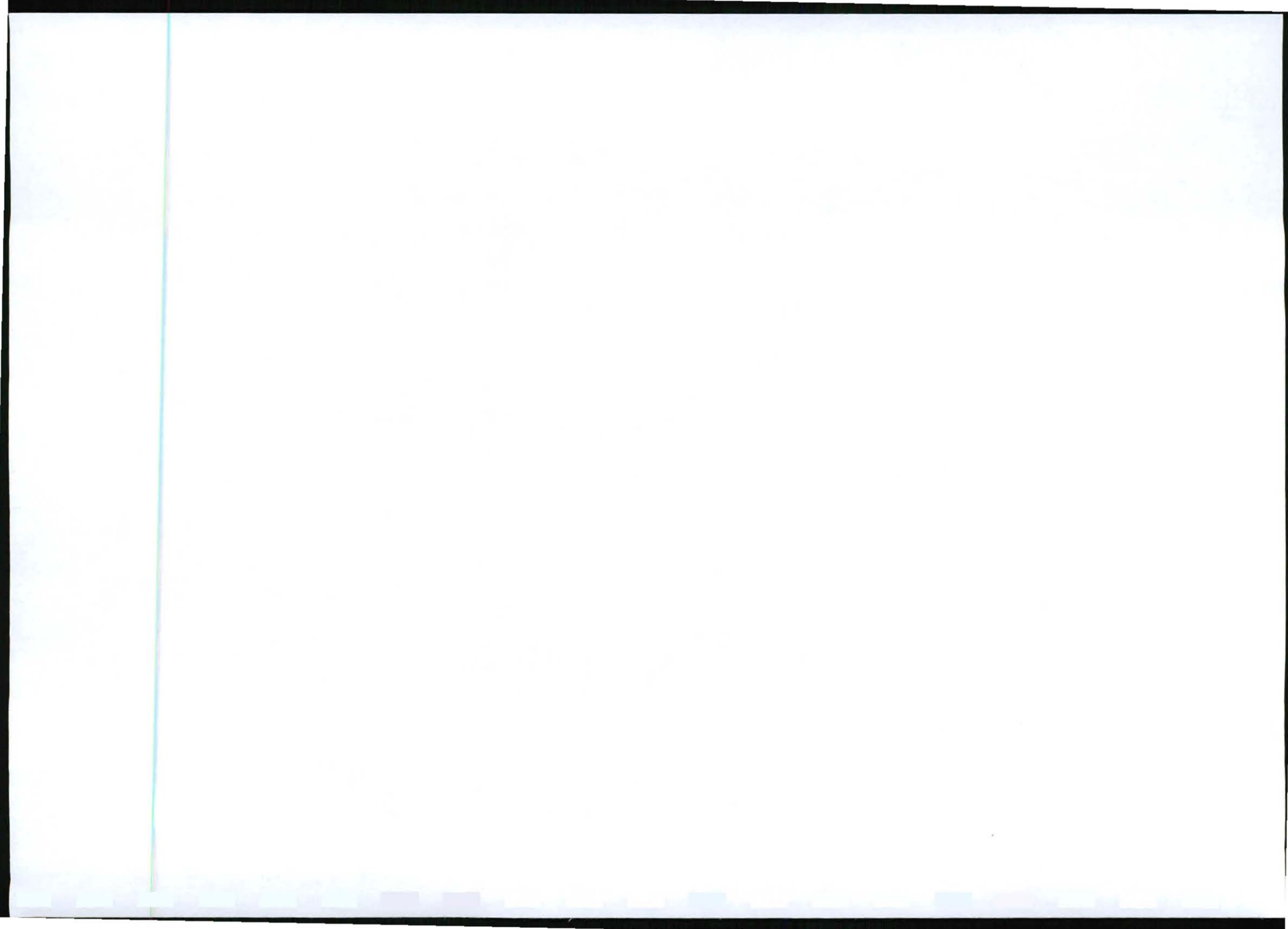
F 5 CLOSURE

When the holder of a prospecting right, mining permit or reconnaissance permission intends closing down his/her operations, an environmental risk report shall accompany the application for closure. The requirements of such a risk report is contained in Regulation 60 of the Regulations promulgated in terms of the Act and is quoted below:

F 5.1 ENVIRONMENTAL RISK REPORT

"An application for a closure certificate must be accompanied by an environmental risk report which must include-

- the undertaking of a screening level environmental risk assessment where-*
 - all possible environmental risks are identified, including those which appear to be insignificant;*
 - the process is based on the input from existing data;*
 - the issues that are considered are qualitatively ranked as –*
 - a potential significant risk; and/or*
 - a uncertain risk; and/or*
 - an insignificant risk.*
- the undertaking of a second level risk assessment on issues classified as potential significant risks where-*
 - appropriate sampling, data collection and monitoring be carried out;*
 - more realistic assumptions and actual measurements be made; and*
 - a more quantitative risk assessment is undertaken, again classifying issues as posing a potential significant risk or insignificant risk.*
- assessing whether issues classified as posing potential significant risks are acceptable without further mitigation;*
- issues classified as uncertain risks be re-evaluated and re-classified as either posing potential significant risks or insignificant risks;*
- documenting the status of insignificant risks and agree with interested and affected persons;*
- identifying alternative risk prevention or management strategies for potential significant risks which have been identified, quantified and qualified in the second level risk assessment;*
- agreeing on management measures to be implemented for the potential significant risks which must include-*
 - a description of the management measures to be applied;*
 - a predicted long-term result of the applied management measures;*
 - the residual and latent impact after successful implementation of the management measures;*
 - time frames and schedule for the implementation of the management measures;*
 - responsibilities for implementation and long-term maintenance of the management measures;*
 - financial provision for long-term maintenance; and*
 - monitoring programmes to be implemented."*





F 5.2 CLOSURE OBJECTIVES

Closure objectives form part of this EMPlan and must-

- (a) identify the key objectives for mine closure to guide the project design, development and management of environmental objectives;
- (b) provide broad future land use objective(s) for the site; and
- (c) provide proposed closure cost

F 5.3 CONTENTS OF CLOSURE PLAN

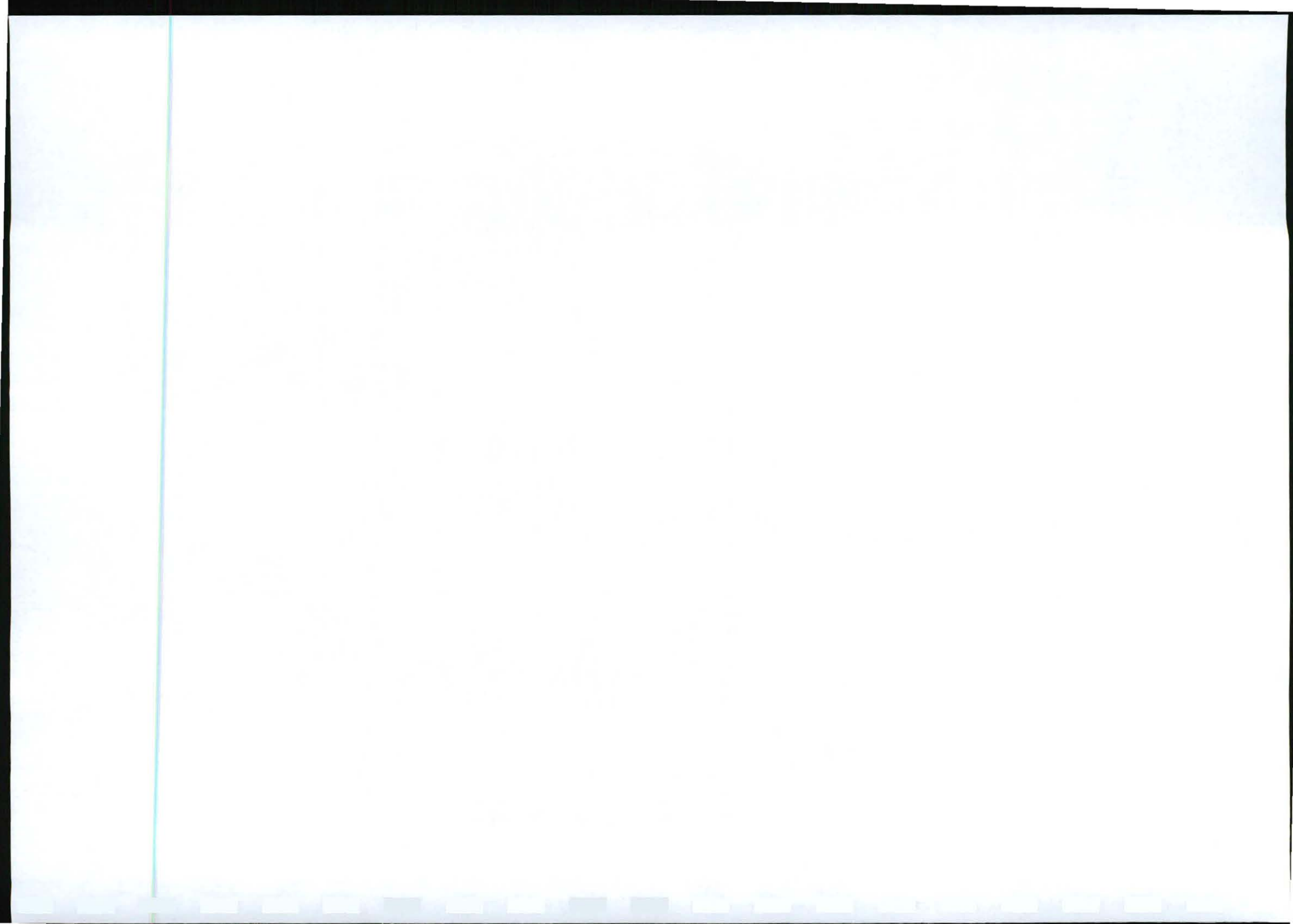
A closure plan forms part of the EMP and must include the following:

- (a) a description of the closure objectives and how these relate to the prospecting or mine operation and its environmental and social setting;
- (b) a plan contemplated in Regulation 2(2), coordinated according to generally accepted standards, showing the land or area under closure;
- (c) a summary of the regulatory requirements and conditions for closure negotiated and documented in the environmental management programme or plan;
- (d) a summary of the results of the environmental risk report and details of identified residual and latent impacts;
- (e) a summary of the results of progressive rehabilitation undertaken;
- (f) a description of the methods to decommission each prospecting or mining component and the mitigation or management strategy proposed to avoid, minimize and manage residual or latent impacts;
- (g) details of any long-term management and maintenance expected;
- (h) details of financial provision for monitoring, maintenance and post closure management, if required;
- (i) a plan or sketch at an appropriate scale describing the final land use proposal and arrangements for the site;
- (j) a record of interested and affected persons consulted; and
- (k) technical appendices, if any.

F 5.4 TRANSFER OF ENVIRONMENTAL LIABILITIES TO A COMPETENT PERSON

Should the holder of a prospecting right, mining permit or reconnaissance permission wish to transfer any environmental liabilities and responsibilities to another person or persons, the following will pertain:

- (1) An application to transfer environmental liabilities to a competent person in terms of section 48) of the Act, must be completed on Form O as set out in Annexure 1 to the Regulations and be lodged to the Minister for consideration.
- (2) The holder of a prospecting right, mining right or mining permit may transfer liabilities and responsibilities as identified in the environmental management plan





and the required closure plan to a competent person as contemplated in Regulation 58.

- (3) When considering the transfer of environmental liabilities and responsibilities in terms of section 48) of the Act, the Minister must consult with any State department which administers any law relating to matters affecting the environment.
- (4) No transfer of environmental liabilities and responsibilities to a competent person may be made unless the Chief Inspector of Mines and the Department of Water Affairs and Forestry have confirmed in writing that the person to whom the liabilities and responsibilities is transferred to, have the necessary qualifications pertaining to health and safety and management of potential pollution of water resources.

F 5.5 NOTES ON LEGAL PROVISIONS

NOTE: The holder of a prospecting right, mining permit or reconnaissance permission must also take cognisance of the provisions of other legislation dealing with matters relating to conservation, and which include, *inter alia*, the following:

- * National Heritage Resources Act, 1999 (Act 25 of 1999).
- * National Parks Act, 1976 (Act 57 of 1976)
- * Environmental Conservation Act, 1989 (Act 73 of 1989)
- * National Environmental Management Act, 1998 (Act No. 107 of 1998)
- * Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965)
- * The National Water Act, 1998 (Act 36 of 1998)
- * Mine Safety and Health Act, 1996 (Act 29 of 1996)
- * The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).

G. SPECIFIC ADDITIONAL REQUIREMENTS DETERMINED BY THE REGIONAL MANAGER.

Officials in regional offices may use the following matrix to determine the necessity for additional objectives to be included in this Section of the document:

| POTENTIAL ENVIRONMENTAL IMPACTS OF MINING | | | | | | | | | | |
|---|-------------|------|-------|-------|----------|-----------|-------|-----|-------|--------|
| Activity | Disturbance | | | | | Pollution | | | | Visual |
| | Landform | Soil | Flora | Fauna | Heritage | Land | Water | Air | Noise | |
| Mining | | | | | | | | | | |
| Access | | | | | | | | | | |
| Topsoil removal | | | | | | | | | | |
| Overburden removal | | | | | | | | | | |
| Mineral Extraction | | | | | | | | | | |
| Tailings disposal | | | | | | | | | | |
| Water Abstraction | | | | | | | | | | |
| Pipeline route | | | | | | | | | | |
| Transport | | | | | | | | | | |





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| | | | | | | | | | | |
|---------------------|--|--|--|--|--|--|--|--|--|--|
| Accomodation | | | | | | | | | | |
| Waste Disposal | | | | | | | | | | |
| Electricity | | | | | | | | | | |
| Hydrocarbon storage | | | | | | | | | | |
| Workforce | | | | | | | | | | |

Please indicate VL, L, M, H, and VH for Very Low, Low, Medium, high and Very High in each column to determine the main area and severity of impact.

G. This section outlines the specific additional requirements that may be set for the operation by the Regional Manager. Additional requirements will only have been set if the Regional Manager is of the opinion that there are specific impacts on the environment which will not be adequately mitigated by the provisions set within the standard version of the Environmental Management Plan. These requirements forms part of the Environmental Management Plan and all elements and instructions contained herein must be complied with by the applicant.





H. UNDERTAKING

I, Floyd Bink....., the undersigned and duly authorized thereto by **Limpopo Department of Roads and Transport** (Company) have studied and understand the contents of this document in it's entirety and hereby duly undertake to adhere to the conditions as set out therein including the amendment(s) agreed to by the Regional Manager in Section G and approved on this

28..... day of June.....2011 Signed at Potokwane.....

[Signature]
Signature of applicant

GM
Designation

Declaration: This document was completed by Shumani SHE Specialists on behalf of Limpopo Department of Roads and Transport (LDRT).

J. APPROVAL

Approved in terms of Section 39(4) of the Mineral and Petroleum Resources Development Act, 2002 (Act 29 of 2002)

Signed at this.....day of.....2011

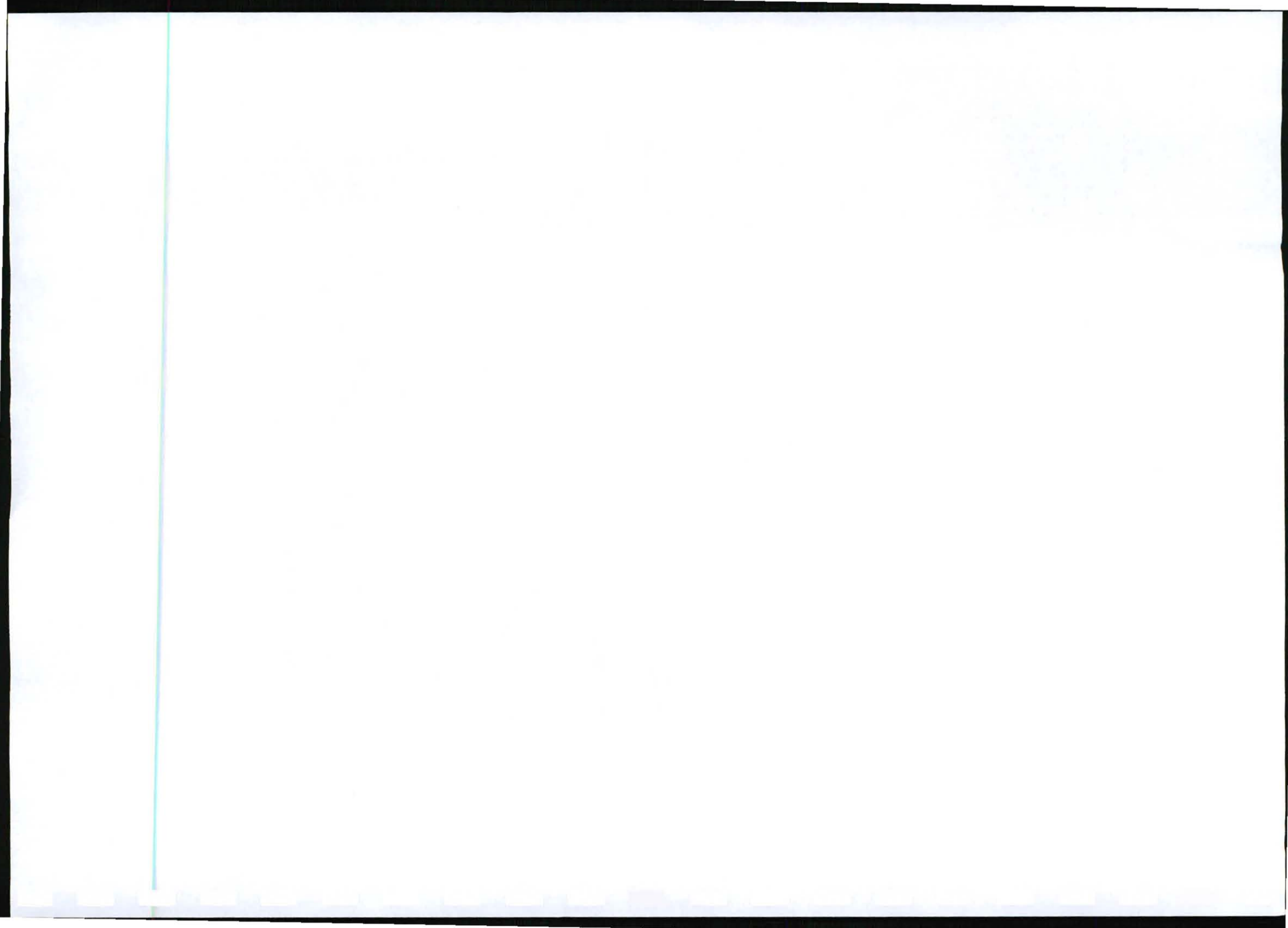
.....
REGIONAL MANAGER

REGION:.....

This document has been compiled by the Directorate: Mine Environmental Management of the Department of Minerals and Energy at their Head Office in Pretoria. Any comments, suggestions or inputs will be sincerely appreciated. If you have any comments or suggestions regarding this document or its application, please forward your contribution to:

The Director: Mine Environmental Management
Private Bag X 59
PRETORIA

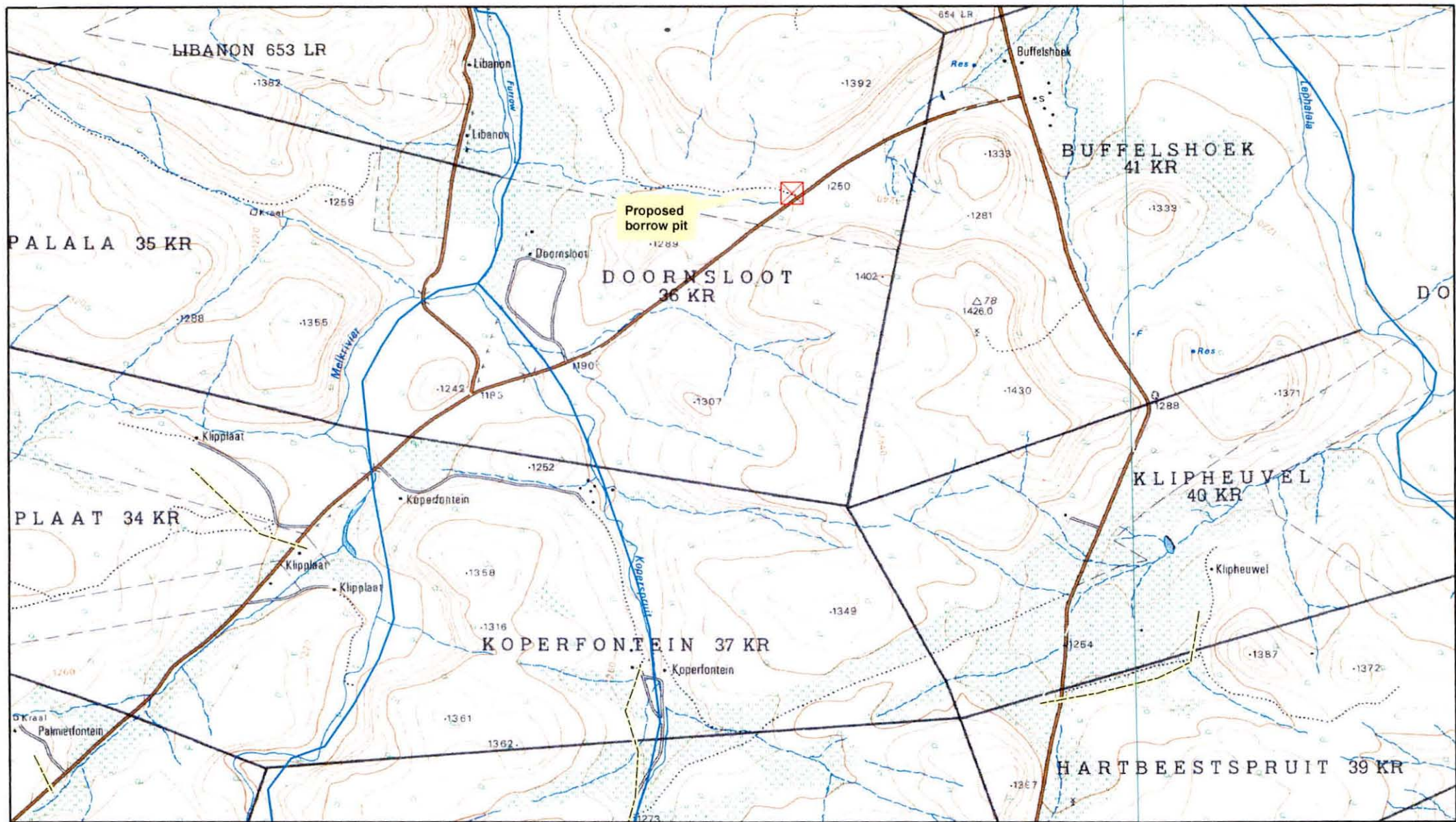
Tel: 012 317 9288
Fax: 012 320 6786
E-mail: dorothy@mepta.pwv.gov.za





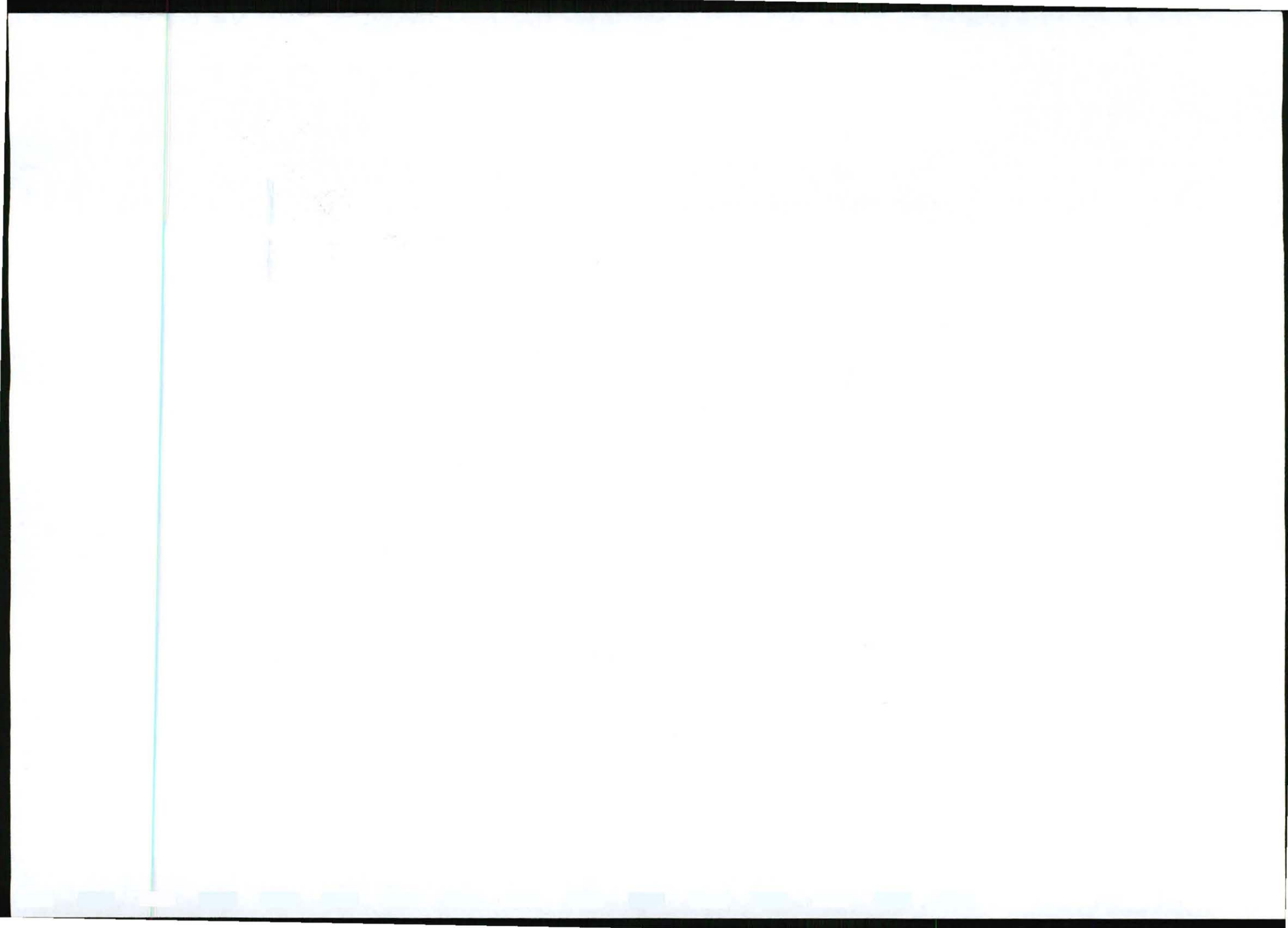
APPENDIX A: Locality map and Google image

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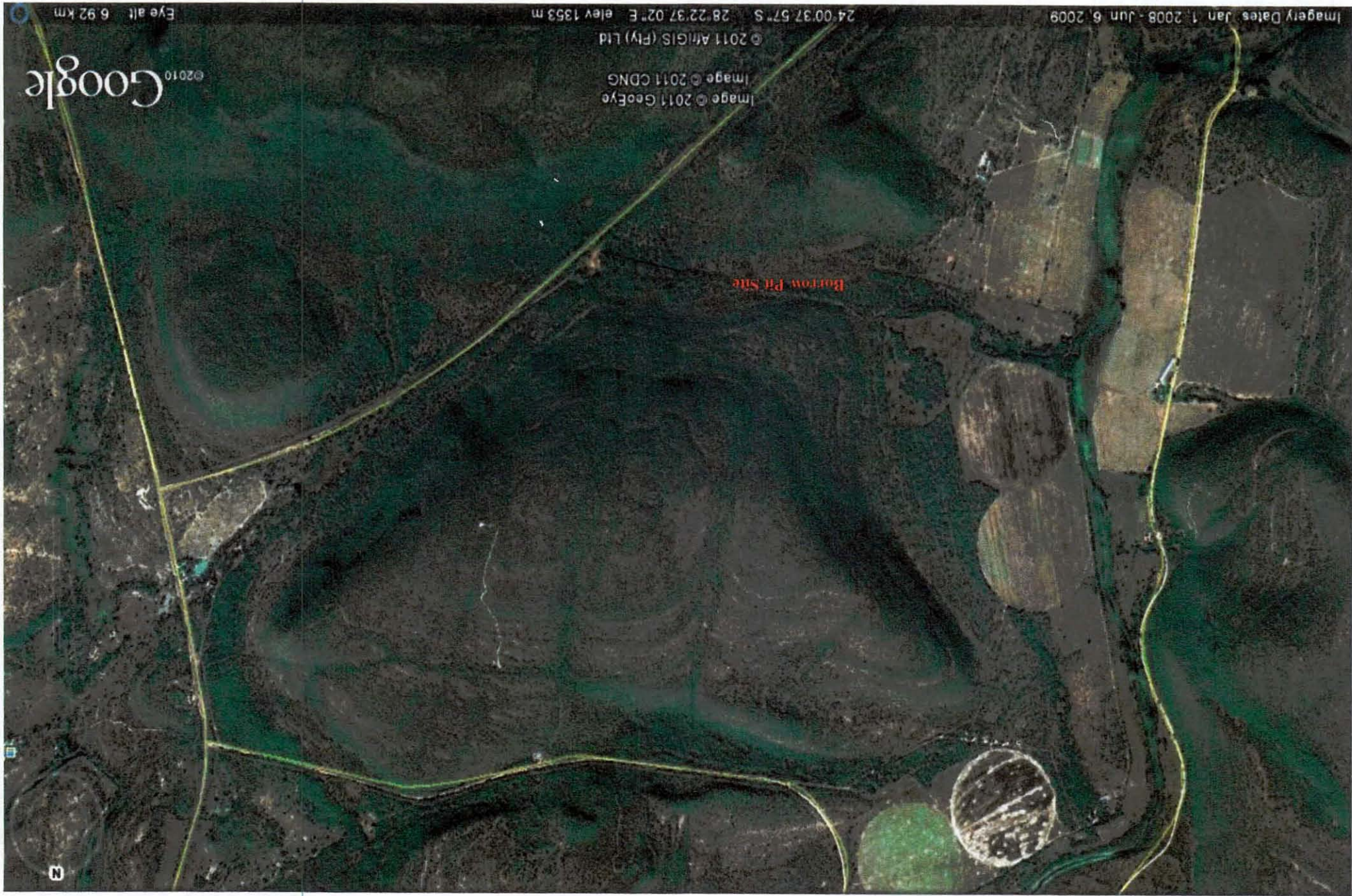


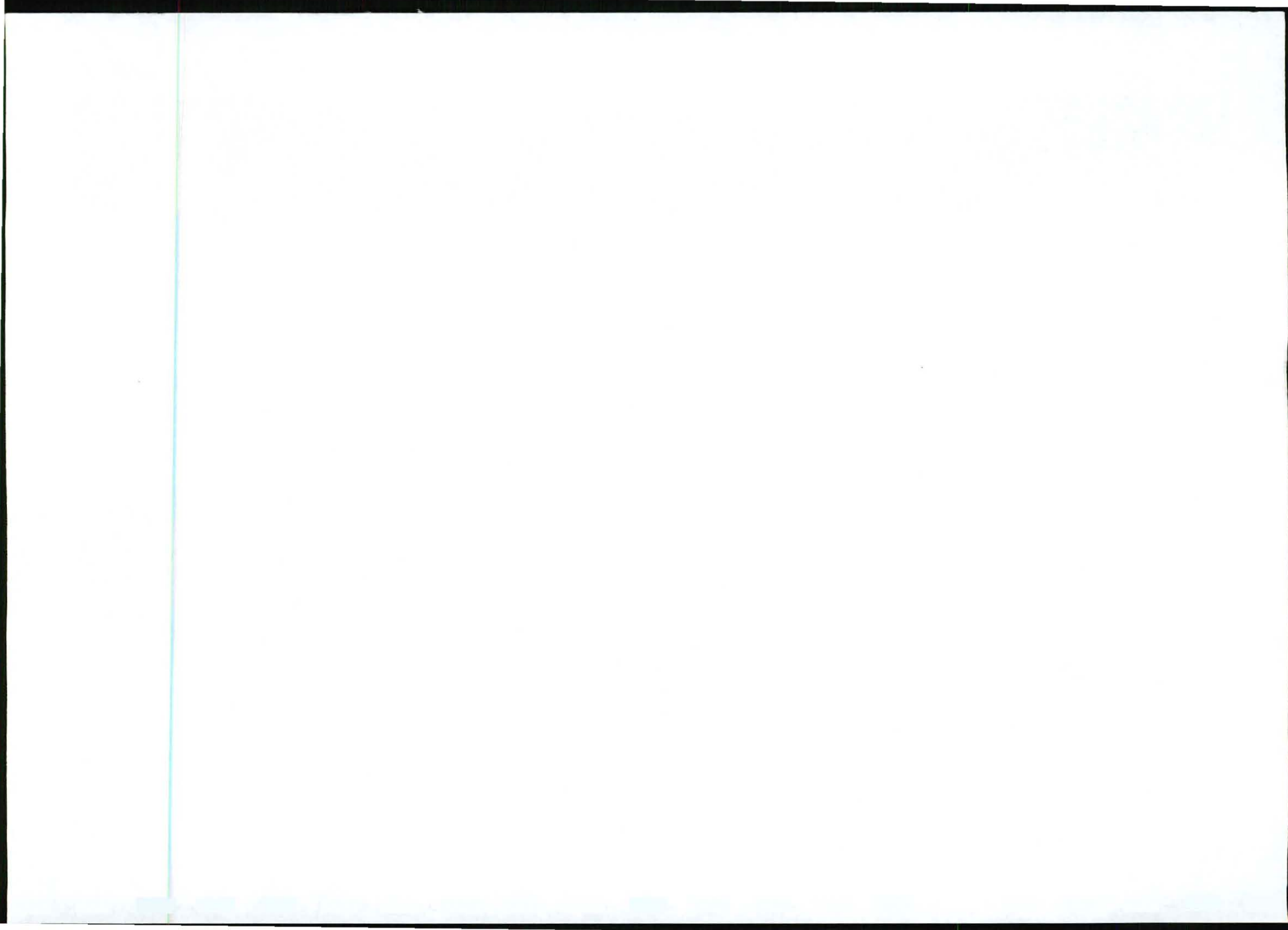
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|---|--|---------------------|---------------|---------------------|-----|----------------|-----------------|------------------|---------------|---------------|-----------------|-----------|--|---|---|
| <p><u>Title:</u></p> <p>Locality Map for proposed Vaalwater Borrow Pit</p> | <p><u>Legend:</u></p> <table border="0"> <tr> <td> Primary road</td> <td> River/Stream</td> <td> Proposed borrow pit</td> <td> Dam</td> </tr> <tr> <td> Secondary road</td> <td> Railway Station</td> <td> Township/Village</td> <td> Rows of trees</td> </tr> <tr> <td> Tertiary road</td> <td> Cultivated land</td> <td> Buildings</td> <td></td> </tr> </table> | Primary road | River/Stream | Proposed borrow pit | Dam | Secondary road | Railway Station | Township/Village | Rows of trees | Tertiary road | Cultivated land | Buildings | | <p><u>Co-ordinates</u></p> <p> 28°22'55.8"E, 24°1'3.9"S</p> | <p><u>Prepared For:</u></p> <p>Shumane SHE Specialists Suite 21, IT Park 11 Piere Street, BENDOR 0699 TEL: 015 291 0956 FAX: 015 291 0953 EMAIL: tshilidzi@shumane.co.za</p> |
| Primary road | River/Stream | Proposed borrow pit | Dam | | | | | | | | | | | | |
| Secondary road | Railway Station | Township/Village | Rows of trees | | | | | | | | | | | | |
| Tertiary road | Cultivated land | Buildings | | | | | | | | | | | | | |



Google Image showing the borrow pit site.







Shumani SHE Specialists

APPENDIX B: ENPAT soil data and land cover maps

