

6.15 Access Creation and Disruption	
Objectives:	To minimise the disruption of traffic on public roads.
Activities:	<ul style="list-style-type: none"> • Construction/upgrade of the access roads • Transportation of material off site
Impact:	The movement of heavy vehicles along the district road accessing the sites may result in some disruption to traffic on the road. This is likely to be largely of nuisance value.
Mitigation Measure:	<p>Increased traffic, especially heavy vehicle traffic, has the potential to draw complaints from nearby residents. The Site Agent is expected to address any complaints received.</p> <p>The Site Agent shall comply with all the applicable local, regional and national by-laws with regard to road safety and transport. He shall instruct his drivers and plant operators that vehicles will be expected to comply with all road ordinances, such as speed limits, roadworthiness, load securing / covering.</p> <p>Site vehicles should be permitted access only within the demarcated construction sites or on existing roads, as would be required to complete their specific tasks.</p> <p>Flagmen and signage must be utilised on site to warn motorists that heavy plant machinery will be entering and exiting the site.</p> <p>Site vehicle traffic should be limited to specific access roads to prevent unnecessary damage to the natural environment.</p>
Responsibility:	Site Agent
Permit Requirements:	None
Institutional and Training requirements:	<p>Appointment of a designated Environmental Control Officer (ECO) on site.</p> <p>Appointment of an External Environmental Auditor (EEA) to conduct monthly site inspections and audits.</p>
Monitoring:	Will be monitored through a public complaints register.

6.16 Procurement of Goods and Services	
Objectives:	To maximise the benefits to the local economy through the procurement of goods and services locally if practical.
Activities:	<ul style="list-style-type: none"> • Mining operations (general)
Benefit:	The local economy within the Study Area and further afield within the surrounding areas of the Mhlontlo, Ntabankulu and Umzimvubu Local Municipalities stand to benefit through the supply of materials or specialist services.
Measures to enhance benefit:	A targeted procurement policy to be implemented at the mine whereby goods and services should be sourced locally if possible. "Local" meaning the study area, followed by the areas within the Mhlontlo, Ntabankulu and Umzimvubu Local Municipalities and finally by the Eastern Cape Province.
Responsibility:	Site Agent
Permit Requirements:	None
Institutional and Training requirements:	None
Monitoring:	None required.

6.17 Employment and Training	
Objectives:	To maximise the social and economic benefits to the local residents through employment and training.
Activities:	<ul style="list-style-type: none"> • Recruitment of labour • Training
Benefit:	The local community stand to benefit from the provision of jobs and the implementation of a staff training programme.
Measures to enhance benefit:	Staff (both skilled and unskilled) should be sourced from the Mhlontlo, Ntabankulu and Umzimvubu Local Municipalities if possible. A training programme should be put in place to train unskilled labour into skilled positions.
Responsibility:	Site Agent
Permit Requirements:	None Required.
Institutional and Training requirements:	Implementation of a Staff Training Programme.
Monitoring:	Will be monitored via the Social and Labour Plan.

6.18 Additional Mitigation Measures

6.18.1 Community Relations

The Site Agent shall erect and maintain information boards at the start of the road construction site. Such boards shall include contact details for complaints by members of the public.

The Site Agent shall keep a “Complaints Register” on Site. The Register shall contain all contact details of the person who made the complaint, information regarding the complaint itself, and measures taken to address the complaint.

A **Project Steering Committee** must be set up with the community to assist the Mine Owner/Site Agent with employment issues and liaison with communities.

A **Community Liaison Officer** must be appointed from the local community. The CLO will be responsible for channelling any complaints from the community through to the Site Agent and will participate in resolving these issues.

6.18.2 Staff Safety and Education

All staff shall be given a health and safety induction course before beginning work on the project site. Part of the induction course will be to make the staff aware of the potential dangers associated with the mining process and the potential hazards around the mine.

The contractor is required to produce a **Health and Safety Plan** (HSP) as per the requirements of the Occupation Health and Safety Act and Regulations. The HSP must include general community safety in the vicinity of the mine, as well as measures to minimise the nuisance factors, such as dust and noise.

The Site Agent must maintain a suitable First Aid Kit at the site office and will have a list of the emergency service contact numbers readily available.

Telephone numbers of emergency services, including the local fire fighting service and HAZMAT/ZORBIT, shall be posted conspicuously in the office near the telephone.

No unauthorised firearms are permitted on site.

All operations on site must be undertaken according to the Mine Health and Safety Act No. 29 of 1996 and ensure the safety, health and welfare of the staff on site.

6.18.3 Work Stoppage

The DME shall have the right to order work to be stopped in the event of significant infringements of the Environmental Specifications. Work will only be allowed to restart once the situation is rectified in compliance with the specifications.

6.18.4 Existing Services and Infrastructure

The Site Agent shall ensure that existing services (if any are discovered during mining on site) are not disrupted or damaged. None have been identified to date.

Activities below within the vicinity of overhead lines must be carefully monitored to ensure that they do not cause damage to those lines, or impact on the safety of employees. Suitable hazard/warning signage must be deployed in the vicinity of the lines.

7 MONITORING OF THE EMP

In order to ensure that the Environmental Management Plan is effectively implemented, it is important that regular external audits of the Environmental Management Plan are conducted.

An External Environmental Auditor (EEA) will be appointed by the Department of Roads and Transport to undertake monthly site inspections and to produce a Biannual Performance Assessment document in compliance with the DME's requirements. The Department of Roads and Transport shall arrange that these external audits do take place and that a system for addressing any problems identified during these audits, is formulated. The relevant documentation shall be kept and shall be available to the DME and the public.

8 DECOMMISSIONING AND CLOSURE

8.1 Environmental and Mine Closure Objectives

8.1.1 Mine Closure

The **Overall Environmental Objective** for mine closure is as follows:

“To render the mining area² in a safe and environmentally acceptable condition on completion of the mining, rehabilitation and closure activities.”

Specific **Environmental Goals** include:

- “To return the mining areas, as closely as possible, to their former condition and landuse through the shaping and landscaping of the surface and through the reestablishment of indigenous vegetation”.
- “To minimise the residual impacts through ensuring that erosion is controlled, slopes are stable, vegetation cover is established and the areas are left in a condition which does not pose a safety hazard to humans, livestock and indigenous fauna”.
- “To minimise the visual impacts of the mines on closure through the avoidance of exposed faces and slopes and the through the reestablishment of the indigenous vegetation”.
- “To obtain the necessary Mine Closure Certificates from the Department of Minerals and Energy”.

8.1.2 Management of Impacts

The objectives and goals for the management of impacts are detailed in Section 6.

8.1.3 Socio-Economic Conditions

The specific objective related to the Socio-Economic Conditions is as follows:

“To contribute to the economic and social development of the study area and the Mhlontlo, Ntabankulu and Umzimvubu Local Municipalities.”

² The mining area is defined as everything within the boundaries of the perimeter fence including the haul roads and any other surface which was disturbed as a result of the mining operations at all of the borrow pits.

Specific goals include:

- “To maximise the benefits to the local economy through the provision of jobs and support of local service providers and suppliers wherever possible.”
- “To institute a training programme for all staff members.”
- “To encourage further economic development through exploring partnerships with local individuals and groups in the establishment of further beneficiation businesses.”

8.2 Responsibilities

The Department of Roads and Transport (DoRT) shall be responsible for the complete rehabilitation of each of the sites, including borrowpit slopes, floor, spoil sites, access roads, haul routes etc. Where re-vegetation is not successful, these affected areas will be re-seeded and replanted until such time as a cover in excess of 80% has been achieved.

8.3 Rehabilitation Plan and Programme

The DoRT/Site Agent, in conjunction with the EEA, shall develop a comprehensive plan for rehabilitation of the entire site, including the associated workshops, site camps etc. This plan must meet the approval of the DME.

The following points must be taken into account when drawing up the **Rehabilitation Plan and Programme**:

- The Plan should be flexible – where measures are found to be inefficient, the plan shall be modified.
- The DoRT shall be responsible for successful rehabilitation and re-vegetation of each of the borrowpit sites, for a minimum period of 2 years after mining has ceased.
- The Plan shall include the eradication of young invasive, exotic species that may have become established during the construction period, in impacted areas and in rehabilitated areas.
- The growth of invasive exotic species shall be monitored during the 24 month period following decommissioning/closure.
- The Plan shall include grass seed mixes applicable to summer and winter.
- The Plan shall include suitable fertilisers and application rates.
- Successful re-vegetation means ≥ 80 % of the seeded area is covered with trees/grass/groundcover (as applicable).

- Where there is insufficient topsoil to cover an area to specified depth, the Site Agent shall import suitable topsoil.

8.4 Additional Requirements

Environmental Management associated with the decommissioning of this project will ensure that the following items are addressed at closure and during the maintenance/liability period:

- All cleared sites are rehabilitated with indigenous grass species.
- All visible alien plants are removed from disturbed sites.
- The mines conform to the designed closure specifications, including drainage, slope stability, topsoiling and grass planting (as described in the mine development plans).
- All site infrastructure will be removed, where applicable, and those areas will be ripped and then covered with a 30mm thick layer of topsoil (wherever possible). Those areas will then be seeded with a mix of grasses indigenous to the area.
- The borrowpit sites must remain fenced with warning signs erected to caution the general public of the altered state of the environment in the area. Drainage structures must also be left intact.
- The top edge of the mine will be cut back to an acceptable angle as indicated in each respective mine development plan.
- Overburden (decomposed rock) will be, where possible, placed over any exposed rock. This will be covered with a layer of topsoil no less than 30cm deep (where possible).
- The topsoil will be seeded at an appropriate time of the year (spring to early – mid summer). Sufficient grass cover will be maintained on the stockpiles during the operational life span of the mines until such a time that the waste material is used in the rehabilitation of the mine faces and slopes.
- The mine area will be fenced with a stockproof fence to prevent access by livestock until such time that the vegetation has been allowed to recover. No dangerous faces which present a safety threat to communities will be left intact.
- All closure objectives prescribed by the DME must be met before retention monies will be released back to the applicant.
- The requirements detailed in Regulations 56, 57, 60, 61 and 62 pertaining to Site Closure must be fulfilled. They include the following key actions:
 - Identify and assess all residual and latent environmental impacts;
 - Undertake a performance assessment and an environmental risk report; and

- Compile a **Closure Plan** and apply for a **Closure Certificate**.

9 FINANCIAL PROVISION

The contract makes provision for the profiling and earthworks required for the rehabilitation of each of the nine borrowpit as well as the fencing, final landscaping and revegetation.

The rehabilitation cost schedules calculated for the borrowpits have been included into APPENDIX E. The calculation assumes that site establishment will be required. A cumulative rehabilitation cost of R800, 000.00 (including VAT) was determined for the borrowpits in total.

Security for the financial provision will be provided by the Department of Roads and Transport (DoRT), who will retain a fixed percentage of the total contract value in retention money until the end of the maintenance period. An amount of R 500, 000.00 has been set aside by DoRT for the DME as a financial guarantee for the rehabilitation of the borrowpits along DR08125 and DR08447. However the DoRT has committed, by undertaking to fully implement and conditions of this EMP, that it will rehabilitate all affected borrowpit sites as described in this EMP.

A letter of financial provision confirming this amount is included in APPENDIX F.

10 UNDERTAKING BY THE APPLICANT

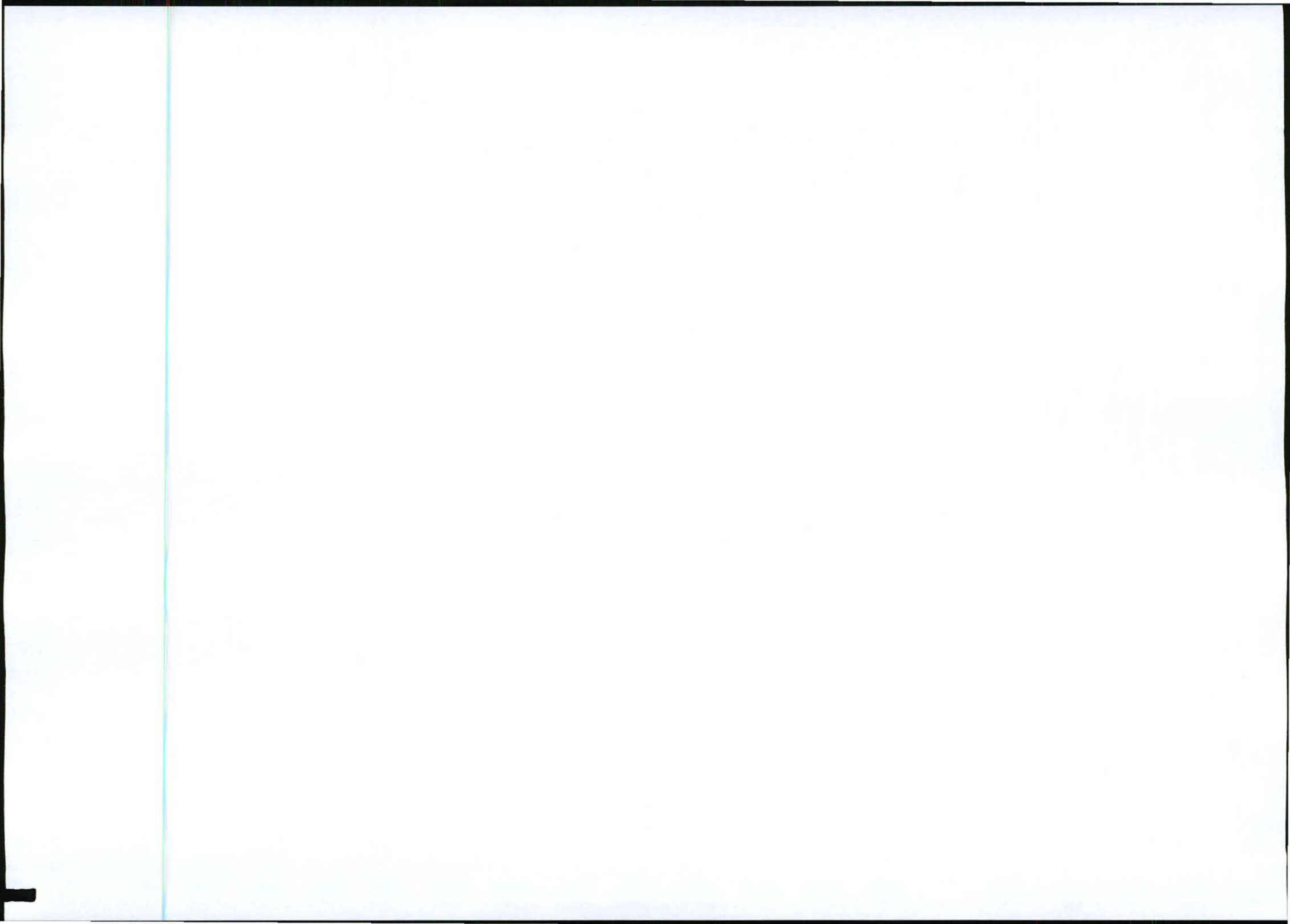
The Client, the Department of Roads and Transport, has undertaken to comply with the requirements of the Environmental Management Plan. A signed copy of the undertaking is included in APPENDIX G.

11 CONFIRMATION OF PROJECT OWNERSHIP

The Client, the Department of Roads and Transport, has confirmed that the road upgrade project as described in this report is a DoRT project. A signed letter of confirmation of ownership is included in APPENDIX H.

APPENDIX A

CULTURAL HERITAGE IMPACT ASSESSMENT



HERITAGE IMPACT ASSESSMENT OF
UPGRADE OF THE DR08125 AND DR08447 ROADS FROM
THE N2 TO SIPETU HOSPITAL,
EASTERN CAPE PROVINCE, SOUTH AFRICA

Assessment and report by



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9 November 2009

Management summary

eThembeni Cultural Heritage was appointed by Terreco to undertake a heritage impact assessment of proposed road upgrades near Mt Frere in the Eastern Cape Province, in terms of the National Heritage Resources Act No 25 of 1999. Two eThembeni staff members inspected the area on 5 November 2009, and completed a controlled-exclusive surface survey and a database and literature search.

Observations

We identified a place (occupied homesteads), one place associated with living heritage, an ancestral grave and two family / community cemeteries within the proposed development area.

Recommended mitigation measures

- Places, buildings, structures and equipment (Borrow pit 2)

The borrow pit may not extend any further towards the occupied homesteads, and the existing faces should be rehabilitated to ensure the safety of human and animal residents.

- Places to which oral traditions are attached or which are associated with living heritage (Cutting 6)

The place of worship may not be disturbed in any way without the permission of church authorities and a permit from SAHRA. A buffer of at least 20 metres must be maintained between the outer edge of the stone circle and any earthworks.

- Graves and burial grounds (Borrow pit 2 and along the road)

It is highly unlikely that the single grave will be affected by the proposed project. No further mitigation is required.

The proposed road upgrade may not extend any further towards the family / community cemeteries than the current road edge. It is imperative that any widening or realignment of the road occur on the side opposite to the cemeteries.

Recommended monitoring

None.

Conclusion

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to the South African Heritage Resources Agency in fulfilment of the requirements of the National Heritage Resources Act.

If permission is granted for the development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify SAHRA should any heritage resources, as defined in the Act, be discovered during the course of development activities.

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Specialist competency

Len van Schalkwyk is accredited by the Cultural Resources Management section of the Association of South African Professional Archaeologists to undertake heritage impact assessments in South Africa.

Mr van Schalkwyk has a master's degree in archaeology (specialising in the history of early farmers in southern Africa) from the University of Cape Town and 20 years' experience in heritage management. He has worked on projects as diverse as the establishment of the Ondini Cultural Museum in Ulundi, the cultural management of Chobe National Park in Botswana and various archaeological excavations and oral history recording projects. He was part of the writing team that produced the KwaZulu-Natal Heritage Act 1997. He has worked with many rural communities to establish integrated heritage and land use plans and speaks good Zulu.

Mr van Schalkwyk left his position as assistant director of Amafa aKwaZulu-Natali, the provincial cultural heritage authority, to start eThembeni. During the past ten years he has directed more than 800 heritage impact assessments throughout South Africa, as well as in Mozambique.

Beth Wahl has a BA Honours African Studies (first class), with archaeology and sociology majors, and has completed various Masters courses in Heritage and Tourism at the University of KwaZulu-Natal. She is a member of the Association of Southern African Professional Archaeologists (ASAPA).

Ms Wahl has undertaken more than 800 heritage impact assessments and monitoring projects throughout South Africa. She was an excavator and logistical coordinator for Glasgow University Archaeological Research Division's heritage programme at Isandlwana Battlefield; has undertaken numerous rock painting surveys in the uKhahlamba / Drakensberg mountains, northern KwaZulu-Natal, the Cederberg and the Koue Bokkeveld in the Cape Province; and was the principal excavator of Scorpion Shelter in the Cape Province, and Lenjane and Crystal Shelters in KwaZulu-Natal.

Ms Wahl has undertaken surveys and monitoring of archaeological sites, excavation of a human skeleton and subsequent community liaison, and written a heritage management plan for Catalina Bay in the iSimangaliso Wetland Park World Heritage Site. She compiled the first cultural landscape management plan for the Mnweni Valley, northern uKhahlamba/Drakensberg, and undertook an assessment of and made recommendations for cultural heritage databases and organisational capacity in parts of Lesotho and South Africa for the Global Environment Facility of the World Bank for the Maloti Drakensberg Transfrontier Conservation and Development Area. She developed the first cultural heritage management plan for the uKhahlamba Drakensberg Park World Heritage Site, following UNESCO recommendations for rock art management in southern Africa.

Declaration of independence

We declare that Len van Schalkwyk, Beth Wahl and eThembeni Cultural Heritage have no financial or personal interest in the proposed development, nor its developers or any of its subsidiaries, apart from in the provision of heritage assessment and management consulting services.

1. Introduction and legislation

eThembeni Cultural Heritage was appointed Terreco to undertake a heritage impact assessment of proposed road upgrades near Mt Frere in the Eastern Cape Province, in terms of the National Heritage Resources Act No 25 of 1999. Section 38(1) of the Act requires such an assessment in case of:

- the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- the construction of a bridge or similar structure exceeding 50 m in length;
- any development or other activity which will change the character of a site—
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- the re-zoning of a site exceeding 10 000 m² in extent; or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

The Act defines a heritage resource as any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes, but is not limited to, the following wide range of places and objects:

- living heritage as defined in the National Heritage Council Act No 11 of 1999 (cultural tradition; oral history; performance; ritual; popular memory; skills and techniques; indigenous knowledge systems; and the holistic approach to nature, society and social relationships);
- ecofacts (non-artefactual organic or environmental remains that may reveal aspects of past human activity);
- places, buildings, structures and equipment;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds;
- sites of significance relating to the history of slavery in South Africa;
- movable objects, but excluding any object made by a living person;
- battlefields; and
- traditional building techniques.

Furthermore, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.

A 'place' is defined as:

- o a site, area or region;
- o a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- o a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- o an open space, including a public square, street or park; and
- o in relation to the management of a place, includes the immediate surroundings of a place.

'Structures' means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

'Archaeological' means –

- o material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- o rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10 m of such representation;
- o wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- o features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

'Palaeontological' means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

'Grave' means a place of interment and includes the contents, headstone or other marker of and any other structures on or associated with such place. Amafa aKwaZulu-Natali and / or the South African Heritage Resources Agency will only issue a permit for the alteration of a grave if they are satisfied that every reasonable effort has been made to contact and obtain permission from the families concerned. eThembeni adheres to the following procedures:

- o Notification of the impending removals (using appropriate language media and notices at the grave site);
- o Consultation with individuals or communities related or known to the deceased;
- o Satisfactory arrangements for the curation of human remains and / or headstones in a museum, where applicable;
- o Procurement of a permit from Amafa aKwaZulu-Natali and / or the South African Heritage Resources Agency;
- o Appropriate arrangements for the exhumation (preferably by a suitably trained archaeologist) and re-interment (sometimes by a registered undertaker, in a formally proclaimed cemetery);
- o Observation of rituals or ceremonies required by the families.

2. Terms of reference

A Heritage Impact Assessment must address the following key aspects:

- the identification and mapping of all heritage resources in the area affected;
- an assessment of the significance of such resources in terms of heritage assessment criteria set out in regulations;
- an assessment of the impact development on heritage resources;
- an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

3. Nature of proposed activities (information provided by the client)

The Provincial Department of Roads and Transport (DRT) proposes to upgrade the DR08125 and DR08447 roads between the N2 National Road and the Sipetu Hospital in the area to the south-west of Mount Frere in the Eastern Cape Province.

The project involves the upgrading sections of the DR08125 and DR08447 roads between the intersection of the DR08125 with the N2 road and the point where the DR08447 reaches the Sipetu Hospital. The road crosses the Mhlontlo, Umzimvubu and Tabankulu Local Municipalities. The total length of road to be upgraded is approximately 40 kilometres.

These sections of the DR08125 and DR08447 are both busy district roads providing access between the rural areas to the east of Mount Frere and the N2 national road. The road is currently considered to be unsafe due to the geometric alignment and road width.

The road is classified as a District Road, therefore the upgraded road profile must correspond with the Department of Transport Guidelines for a rural road. The new road will have a design speed of 60km/h and will have some improved features such as line of sight where necessary. The majority of the roadworks envisaged will be contained within the limits of the existing road reserve, but some realignment will be required for improved road geometry and resultant safety.

The most significant of the realignments will be in areas where sharp bends in the road occur. The sharpness of these corners will need to be decreased, therefore some of the road cuttings (a total of six) will need to be trimmed back into the slope and the position of the road altered as necessary.

The existing road corridor alignment generally follows that of the local watershed and as such there are limited structures or river crossings required on the project. The project will require the replacement of one culvert along the route. The bridge over the Sipetu River will remain in place and in its current form. No new bridge will be built.

Material for concrete and layer works and for surfacing stone will be sourced from new and existing borrow pits and quarries located along the route. Existing borrow pits will be rehabilitated with spoil material where possible and all material sources will undergo rehabilitation on closure and left in a safe and stable condition. Hard rock will be mined from a new dolerite quarry and from within the road reserve. Blasting and crushing may be required at some of the mining areas. All material sources will be permitted by the Department of Minerals and Energy as required under the Minerals and Petroleum Resources Development Act No 28 of 2002.

4. Site access, description and environmental issues (information provided by the client)

Figure 1 below is a locality plan of the proposed road upgrades in the Eastern Cape Province. Locations for each borrow pit and the proposed road cuttings follow in Table 1.

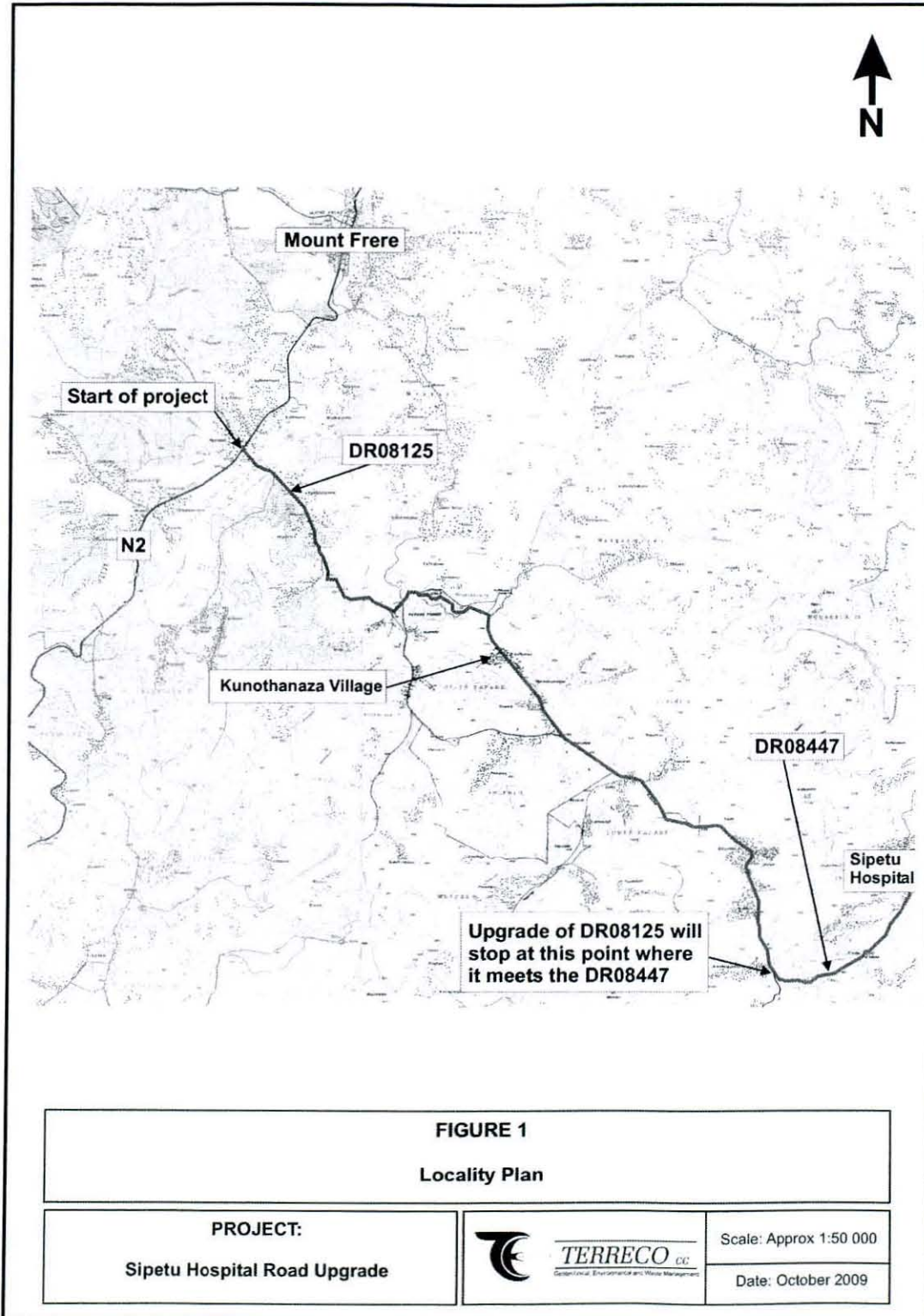


Figure 1. Locality of the DR08125 and DR08447 roads in the Eastern Cape Province, South Africa.

NAME	LOCATION
Project start	S30 57 35.7 E28 57 34.5
Cutting 1	S30 59 02.1 E28 58 59.9
Cutting 2	S30 59 11.4 E28 59 01.1
Cutting 3	S30 59 19.8 E28 59 04.0
Cutting 4	S30 59 51.6 E28 59 16.8
Borrow pit 10	S31 00 16.8 E28 59 37.0
Borrow pit 9	S31 00 09.4 E29 00 52.9
Borrow pit 8	S31 00 40.1 E29 02 36.9
Borrow pit 7 (Quarry)	S31 04 50.0 E29 06 25.3
Cutting 5	S31 04 55.3 E29 06 36.1
Borrow pit 6	S31 04 58.5 E29 06 58.7
Borrow pit 5	S31 06 55.1 E29 08 07.2
Borrow pit 4	S31 07 25.9 E29 08 16.1
Cutting 6	S31 08 11.4 E29 09 04.2
Borrow pit 3	S31 06 58.4 E29 10 48.2
Borrow pit 2	S31 06 42.1 E29 10 48.2
Borrow pit 1	S31 06 00.0 E29 11 16.8
Project end – Sipetu Hospital	S31 05 29.1 E29 11 12.8

Table 1. Locations of the borrow pits and proposed road cuttings associated with the road upgrades.

5. Methodology

Two eThembeni staff members inspected the area on 5 November 2009. We completed a controlled-exclusive surface survey, where 'sufficient information exists on an area to make solid and defensible assumptions and judgements about where [heritage resource] sites may and may not be' and 'an inspection of the surface of the ground, wherever this surface is visible, is made, with no substantial attempt to clear brush, turf, deadfall, leaves or other material that may cover the surface and with no attempt to look beneath the surface beyond the inspection of rodent burrows, cut banks and other exposures that are observed by accident' (King 1978¹).

We consulted various provincial databases, including historical, archaeological and geological sources and sourced a concise account of South Africa's pre and postcolonial history (available on request). We assessed the value and significance of heritage resources, as defined in the National Heritage Resources Act 1999 and the criteria contained in Appendix A. Culturally significant landscapes were assessed according to the criteria in Appendix B.

Geographic coordinates were obtained with a handheld Garmin 60 global positioning unit. Photographs were taken with a Nikon Coolpix S200 digital camera. A statement of independence and a summary of our ability to undertake this heritage impact assessment are available on request.

The assumptions and limitations of this heritage impact assessment are as follows:

- We have assumed that the description of the proposed project, provided by the client, is accurate.
- We have assumed that the public consultation process undertaken as part of the Environmental Impact Assessment is sufficient and adequate and does not require repetition as part of the heritage impact assessment.
- Soil surface visibility was moderate. Heritage resources might be present in densely vegetated areas and we remind the client that the Act requires that a developer cease all work immediately and notify Amafa should any heritage resources, as defined in the Act, be discovered during the course of development activities.
- We did not record burial sites located within household precincts, since we assume that these will not be affected by this project.
- No subsurface investigation (including excavations or sampling) were undertaken, since a permit from SAHRA is required to disturb a heritage resource.

¹ King, T. F. 1989. The archaeological survey: methods and uses. Quoted in Canter, L. W. 1996. Environmental impact assessment. Second Edition. New York: McGraw-Hill, Inc.

6. Observations

No development activities associated with the proposed project had begun at the time of our visit, in accordance with heritage legislation.

We assessed the following categories of heritage resources:

Living heritage

See below.

Ecofacts

None were identified within the proposed development area.

Places, buildings, structures and equipment

- Borrow pit 2

Occupied homesteads are located very close to this borrow pit, as indicated on the following images.



Figure 2. Occupied homestead located close to Borrow pit 2.

Places to which oral traditions are attached or which are associated with living heritage

– Cutting 6

A stone circle indicating a place of worship is located at the top of the hill at S31 08 09.2 E29 09 00.4, close to Cutting 6 (Figures 3, 4 and 5). It has high heritage significance at the local and regional levels for its social and spiritual values.



Figure 3. Location of the place of worship relative to the proposed cutting.



Figure 4. The place of worship demarcated by white-painted stones.



Figure 5. A detail of the place of worship.

Historical settlements and townscapes

None were identified within the proposed development area.

Landscapes and natural features

None were identified within the proposed development area.

Geological sites of scientific or cultural importance

None were identified within the proposed development area.

Archaeological and palaeontological sites

None were identified within the proposed development area.

Graves and burial grounds

- Borrow pit 2

A possible ancestral grave marked only with stones is located in a fallow field at S31 06.892; E29 10.792 (31° 6'53.52"S; 29°10'47.52"E), as pictured below.



Figure 6. A possible ancestral grave located close to Borrow pit 2.

- Family / community cemeteries

A family or community cemetery is located at S30 58.775; E28 58.867, within ten metres of the edge of the existing road (Figures 7 and 8). It comprises more than 40 graves.



Figure 7. The community cemetery with numerous marked and unmarked graves.

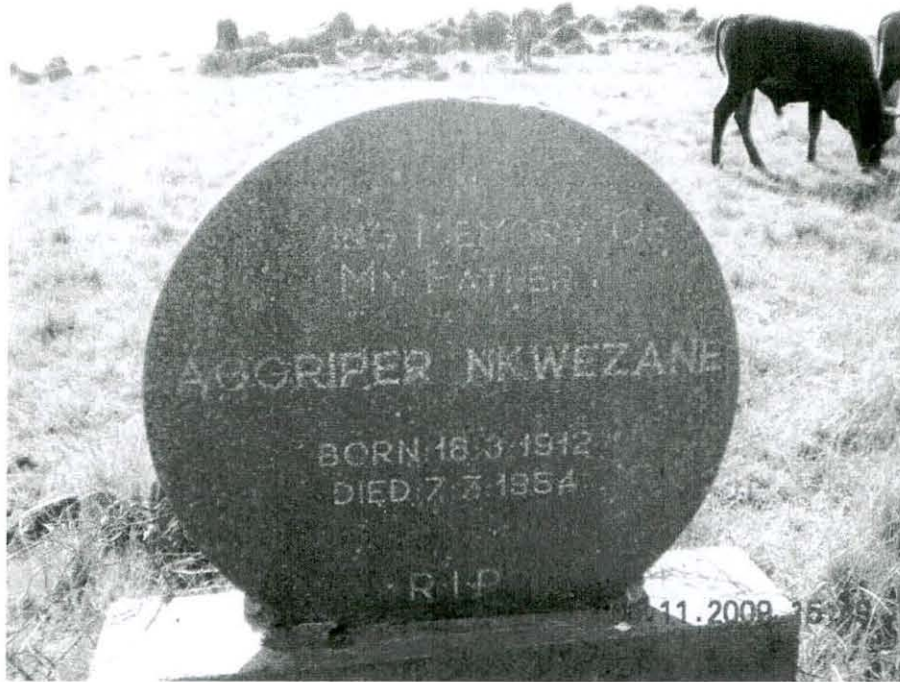


Figure 8. The inscription on the most prominent grave within the community cemetery.

The Gqoboka family cemetery is located at S31 06.167; E29 07.950, within 12 metres of the existing road (Figure 9).



Figure 9. The Gqoboka family cemetery.

Movable objects excluding any object made by a living person

None were identified within the proposed development area.

Battlefields

None were identified within the proposed development area.

Traditional building techniques

None were identified within the proposed development area.

7. Recommended mitigation measures

Places, buildings, structures and equipment

- Borrow pit 2

The borrow pit may not extend any further towards the occupied homesteads, and the existing faces should be rehabilitated to ensure the safety of human and animal residents.

Places to which oral traditions are attached or which are associated with living heritage

- Cutting 6

The place of worship may not be disturbed in any way without the permission of church authorities and a permit from SAHRA. A buffer of at least 20 metres must be maintained between the outer edge of the stone circle and any earthworks.

Graves and burial grounds

Human remains may not be altered in any way without the permission of the families concerned and a permit from SAHRA.

- Borrow pit 2

It is highly unlikely that this grave will be affected by the proposed project. No further mitigation is required.

- Family / community cemeteries

The proposed road upgrade may not extend any further towards the cemeteries than the current road edge. It is imperative that any widening or realignment of the road occur on the side opposite to the cemeteries.

8. Recommended monitoring

None.

9. Summary of findings in terms of the National Heritage Resources Act 1999 Section 38(3)

- o The identification and mapping of all heritage resources in the area affected

A place (occupied homesteads), one place associated with living heritage, an ancestral grave and two family / community cemeteries.

- o An assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations

The homesteads and place associated with living heritage have high heritage significance at the local and regional levels for their social and spiritual values.

All human remains have high heritage significance at all levels for their social value.

- o An assessment of the impact of development on such heritage resources

This development should avoid all permanent impact on the place associated with living heritage, the ancestral grave and the cemeteries.

- o An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development

Not applicable if the proposed mitigation measures are implemented.

- o The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

The client has undertaken such consultation in terms of statutory requirements and retains the relevant documentation.

- o If heritage resources will be adversely affected by the proposed development, the consideration of alternatives

See Sections 7 and 8.

- o Plans for mitigation of any adverse effects during and after completion of the proposed development

If permission is granted for development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify SAHRA should any heritage resources, as defined in the Act, be discovered during the course of development activities.

10. Conclusion

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to the South African Heritage Resources Agency in fulfilment of the requirements of the National Heritage Resources Act. According to Section 38(4) of the Act the report shall be considered timeously by the Council which shall, after consultation with the person proposing the development, decide –

- o whether or not the development may proceed;
- o any limitations or conditions are to be applied to the development;
- o what general protections in terms of this Act apply, and what formal protections may be applied to such heritage resources;
- o whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- o whether the appointment of specialists is required as a condition of approval of the proposal.

Relevant staff members may be contacted at the SAHRA Cape Town head office (Mary Leslie telephone 021 462 4502; mleslie@sahra.org.za).

APPENDIX A

SIGNIFICANCE AND VALUE OF HERITAGE RESOURCE SITES

The following guidelines for determining site significance were developed by the South African Heritage Resources Agency in 2003. We use them in conjunction with tables of our own formulation (see that for the Southern African Iron Age, below) when considering intrinsic site significance and significance relative to development activities, as well as when recommending mitigatory action.

Type of Resource

Place

Structure

Archaeological Site

Palaeontological Site

Geological Feature

Grave

Type of Significance

1. Historical Value

It is important in the community, or pattern of history

- Importance in the evolution of cultural landscapes and settlement patterns
- Importance in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, Province, region or locality.
- Importance for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, Province, region or community.
- Importance as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period

It has strong or special association with the life or work of a person, group or organisation of importance in history

- Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, Province, region or community.

It has significance relating to the history of slavery

- Importance for a direct link to the history of slavery in South Africa.

2. Aesthetic Value

It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group

- Importance to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

3. Scientific Value

It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.

It is important in demonstrating a high degree of creative or technical achievement at a particular period

- Importance for its technical innovation or achievement.

4. Social Value

It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

Degrees of Significance

Rarity

It possesses uncommon, rare or endangered aspects of natural or cultural heritage

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

Representivity

It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects

Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.

Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, Province, region or locality.

Sphere of Significance	High	Medium	Low	
International	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
National	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provincial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Local	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Specific Community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-----

What other similar sites may be compared to this site?

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Southern African Iron Age

	Significance		
	- low	- medium	- high
Unique or type site			Yes
Formal protection			Yes
Spatial patterning	?Yes	?Yes	?Yes
Degree of disturbance	75 – 100%	25 – 74%	0 – 24%
Organic remains (list types)	0 – 5 / m ²	6 – 10 / m ²	11 + / m ²
Inorganic remains (list types)	0 – 5 / m ²	6 – 10 / m ²	11 + / m ²
Ancestral graves			Present
Horizontal extent of site	< 100m ²	101 – 1000m ²	1000 + m ²
Depth of deposit	< 20cm	21 – 50cm	51 + cm
Spiritual association			Yes
Oral history association			Yes
> Research potential			High
> Educational potential			High

Please note that this table is a tool to be used by qualified cultural heritage managers who are also experienced site assessors.

APPENDIX B

THE MANAGEMENT OF CULTURAL LANDSCAPES

The Cultural Landscape Foundation² defines cultural landscapes as follows:

A cultural landscape is a geographic area that includes resources and natural resources associated with a historic event, activity, or person. Sometimes cultural landscapes are the result of one person or group of people acting upon the land. Other times they are the result of an idea one person or a group had and then created at that time. Cultural landscapes can range from thousands of acres of rural lands to a small homestead with a front yard of less than one acre. They include grand estates, farmland, public gardens and parks, college campuses, cemeteries, scenic highways and even industrial sites.

Four general types of Cultural Landscapes, not mutually exclusive, are:

- Historic Sites
- Historic Designed Landscapes
- Historic Vernacular Landscapes
- Ethnographic Landscapes

Cultural Landscapes can:

- Be man-made expressions of visual and spatial relationships.
- Serve as texts and narratives of cultures.
- Be valuable expressions of regional identity.
- Be works of art that are part of our national heritage.
- Exist in relationship to their ecological contexts.

What are cultural landscapes? by Alice E. Ingerson, Institute for Cultural Landscape Studies³

Virtually all landscapes have cultural associations, because virtually all landscapes have been affected in some way by human action or perception. Therefore, the Institute for Cultural Landscape Studies does not use the phrase "cultural landscape" to mean a special type of landscape. Instead, we use "cultural landscape" to mean a way of seeing landscapes that emphasizes the interaction between human beings and nature over time. ICLS also works with many other organizations, some of which have contrasting or even conflicting definitions of "cultural landscape":

individual, special, aesthetic, collective, representative, useful, cultural, related to the arts (consciously designed objects), ideas of enduring value related to the everyday beliefs and practices of a group of people, the work of landscape architects or garden designers, scenery portrayed in a painting or photograph, or that is seen as worth painting or photographing, the land that can be seen from a single vantage point (usually larger than a "site", smaller than a "region"), "nearly everything we see when we go outdoors" — Peirce Lewis 1979

² Though professional techniques for identifying, documenting, and managing cultural landscapes have evolved rapidly in the past 30 years, the results of the professionals' work often fails to reach the general public. Consequently, many of the places in which we live, work, and play often change considerably—sometimes over years and sometimes overnight! The Cultural Landscape Foundation is the only not-for-profit foundation in America dedicated to increasing the public's awareness of the importance and irreplaceable legacy of cultural landscapes. Through education, technical assistance, and outreach, the Cultural Landscape Foundation aims to broaden the support and understanding for cultural landscapes nationwide in hopes of saving our priceless heritage for future generations. The CLF achieves this mission by: (1) heightening the awareness of those who impact cultural landscapes; (2) assisting those groups and organizations who are working to increase the appreciation and recognition of cultural landscapes; and, (3) developing educational tools for young people to better connect them to their cultural landscape environs.

³ From the website of the Institute for Cultural Landscape Studies of the Arnold Arboretum (<http://www.icls.harvard.edu>), © The President and Fellows of Harvard College. The Institute for Cultural Landscape Studies was formed in 1997 to support the emerging community of professionals and volunteers who manage and interpret landscapes with a significant history of human use, particularly in the northeastern United States. These practitioners work with a wide variety of places, from historic gardens and public parks to urban streetscapes, broad agricultural or industrial regions, and conservation or ecological reserves. These landscapes are neither static nor self-contained. Managing them requires active experimentation and continuous learning, to understand how past events and decisions produced today's landscapes, and how today's decisions and events are already producing tomorrow's landscapes. The Institute for Cultural Landscape Studies worked with nonprofit organizations, public agencies, and colleges and universities to capture place-based knowledge about cultural landscapes, and to respond to emerging issues.

The National Park Service and the National Register of Historic Places, as well as organizations that look to these agencies for management models and standards, use the operational definition of "cultural landscape" from the 1996 Secretary of the Interior's . . . Guidelines for the Treatment of Cultural Landscapes:

a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

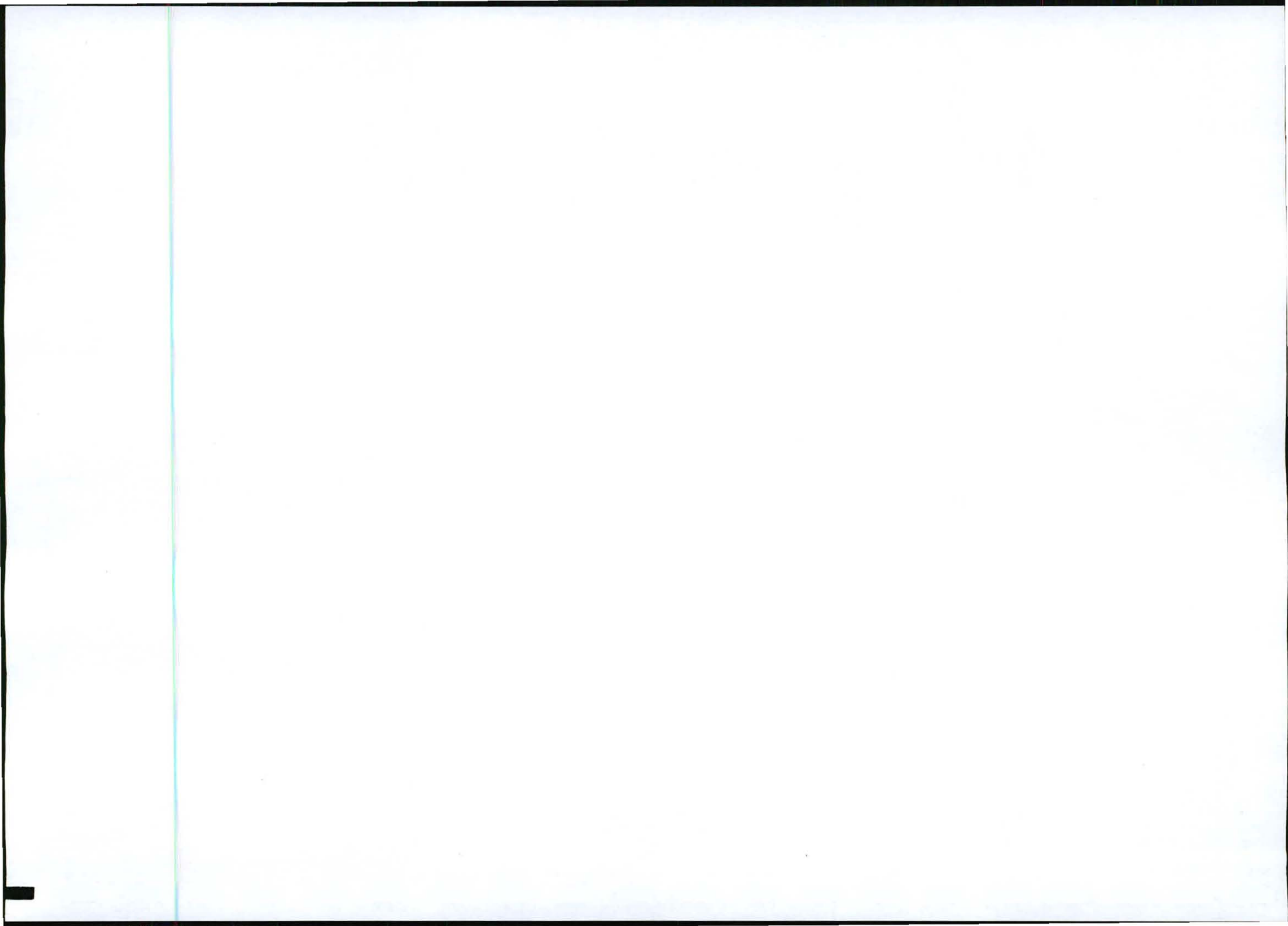
Historic landscapes, unlike works of art, have to function as contemporary environments — we have literally to enter and become involved with them. — Catherine Howett 1987

Much public discussion about cultural landscapes is about preserving special or historic places. Yet the definition of "special" varies over time, among different cultures, and in different places. A landscape valued by one group may be simply invisible, or even offensive, to another. Next to an official historic district may be a neighborhood that is not eligible for any special treatment but has deep meaning and associations for the people who live there. Mobile homes may be critical to a farm economy, though they jar the sensibilities of visitors expecting to see only white clapboard houses and wooded hillsides from a "scenic overlook" in a state forest. The historic district and the ordinary neighborhood, working farms and protected forests, are all cultural landscapes.

Even when landscape preservation standards are broadened to include a wide range of landscape types, strict preservation is not always an appropriate stance. Designers and communities may also choose to transform existing landscapes or create new ones. Managing cultural landscapes thus involves planning for positive change as well as preventing negative change.

APPENDIX B

BORROWPIT DEVELOPMENT PLANS AND PHOTOGRAPHS



PHOTOGRAPHS OF BORROWPITS FOR THE SIPETU ROAD PROJECT

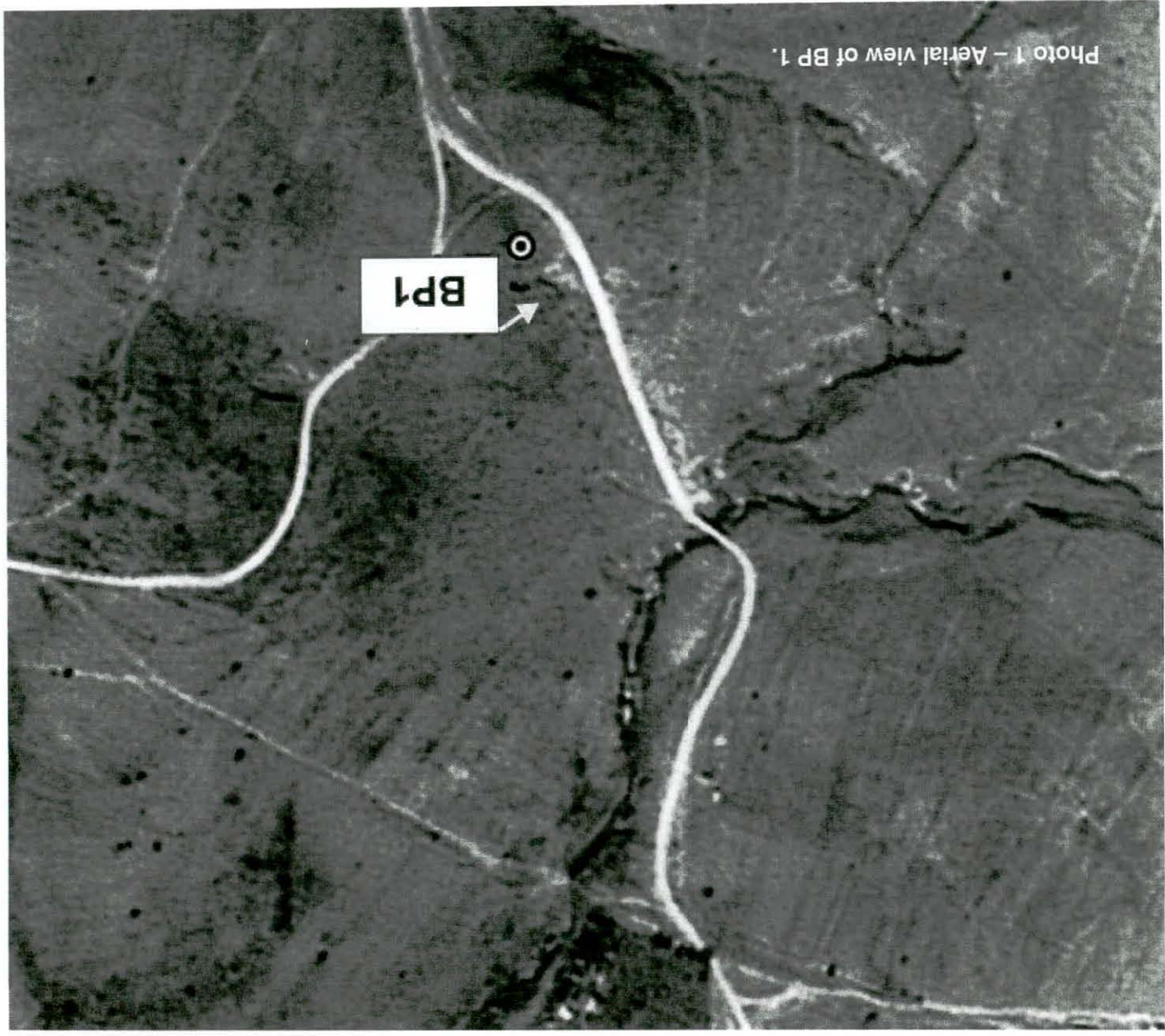


Photo 1 - Aerial view of BP 1.

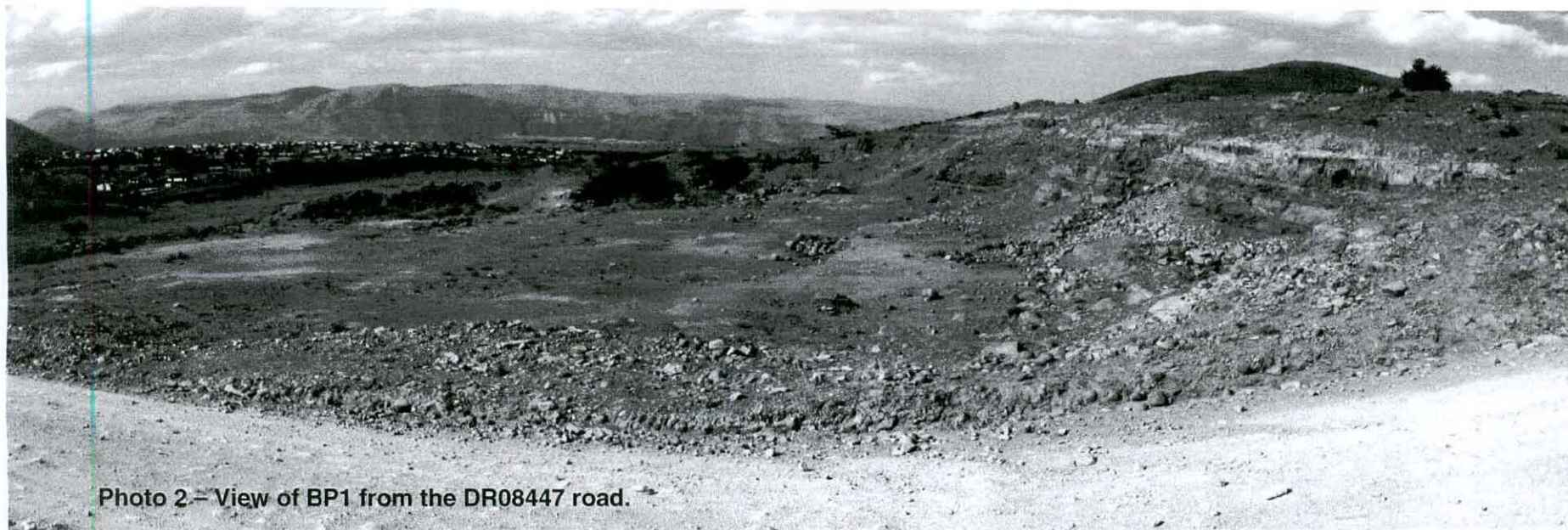


Photo 2.- View of BP1 from the DR08447 road.



Photo 3 - Aerial view of BP 2.

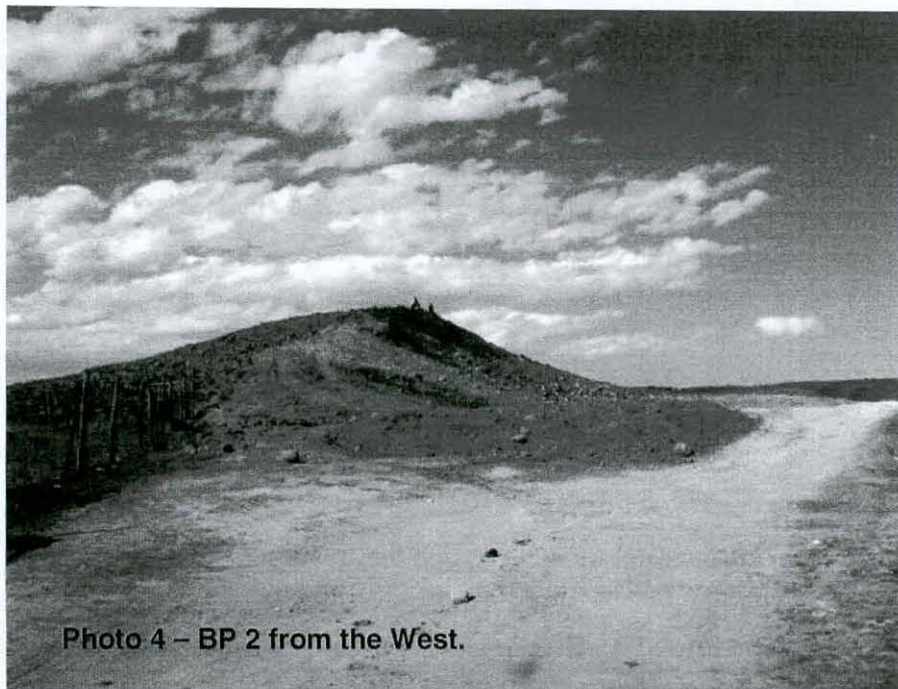


Photo 4 – BP 2 from the West.

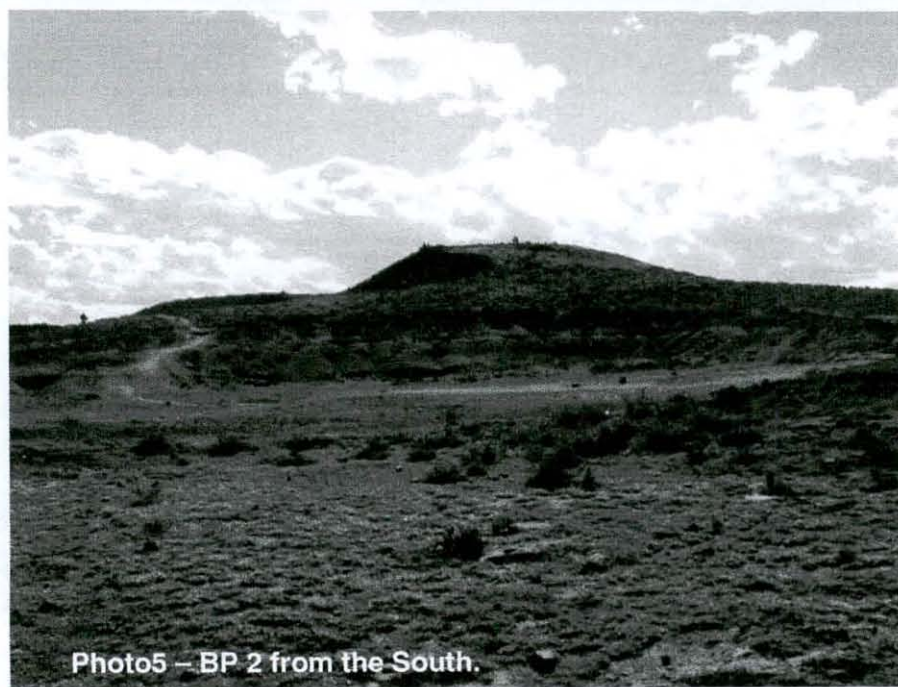


Photo5 – BP 2 from the South.

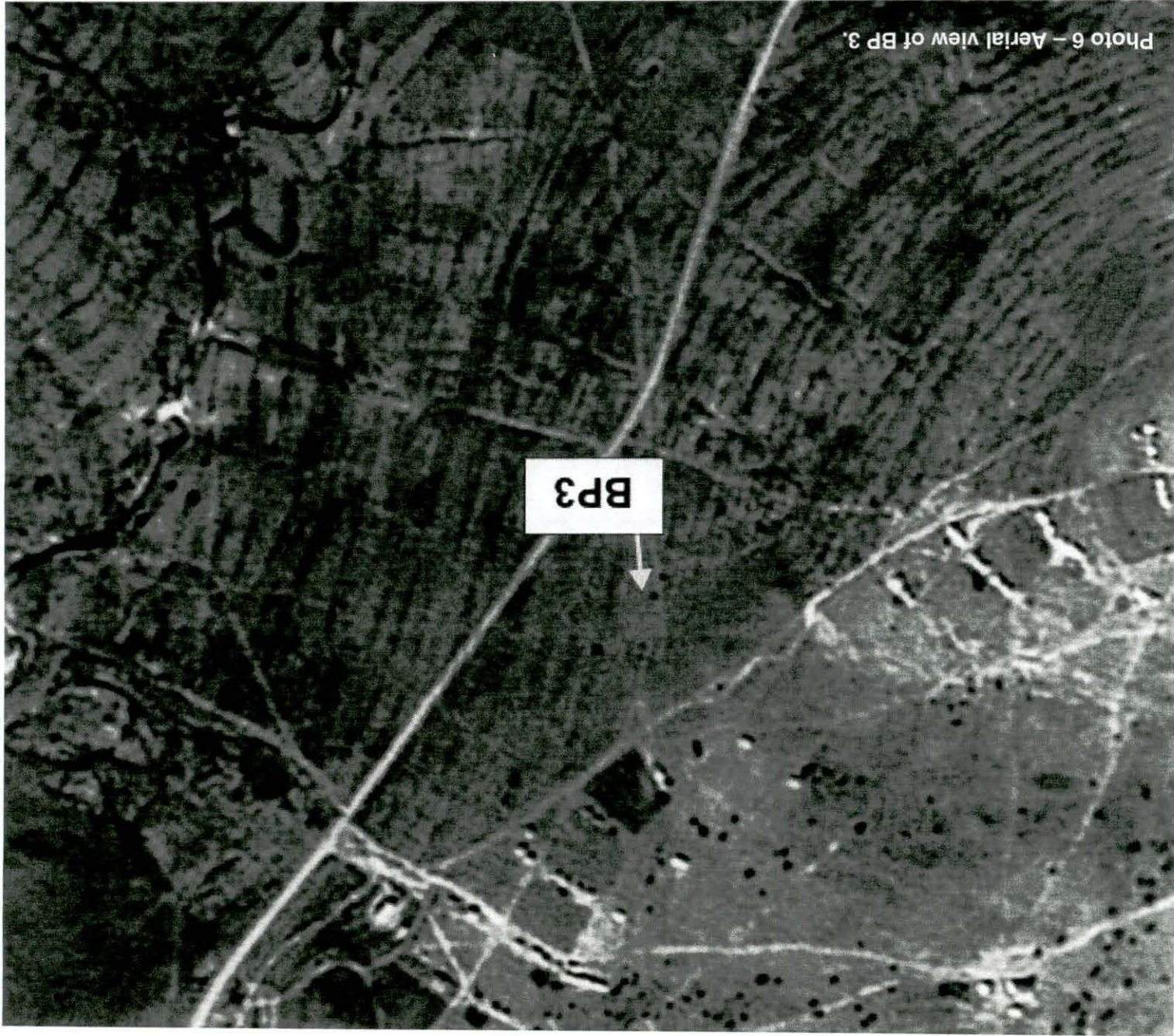


Photo 6 - Aerial view of BP 3.

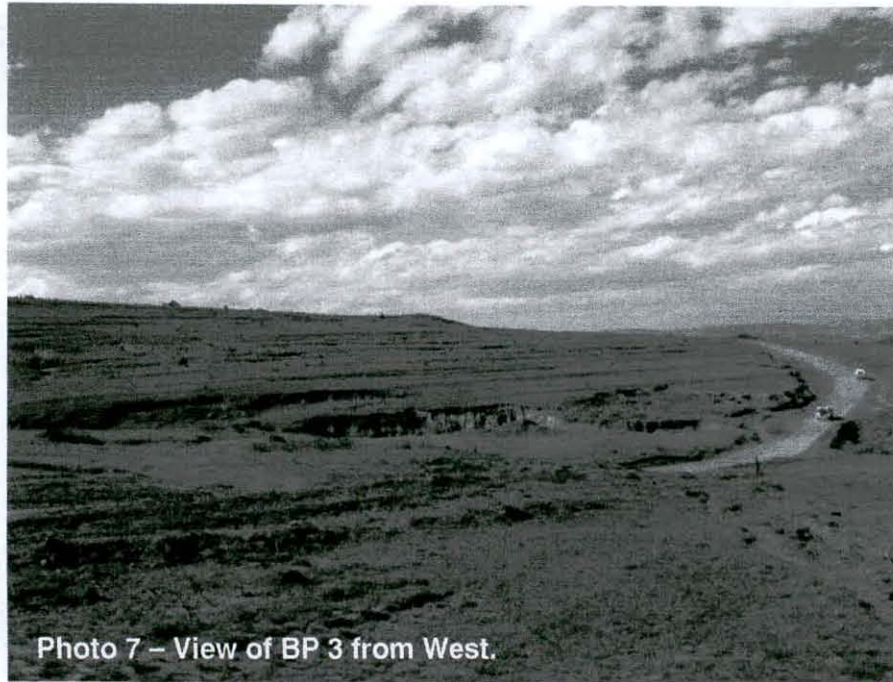


Photo 7 – View of BP 3 from West.

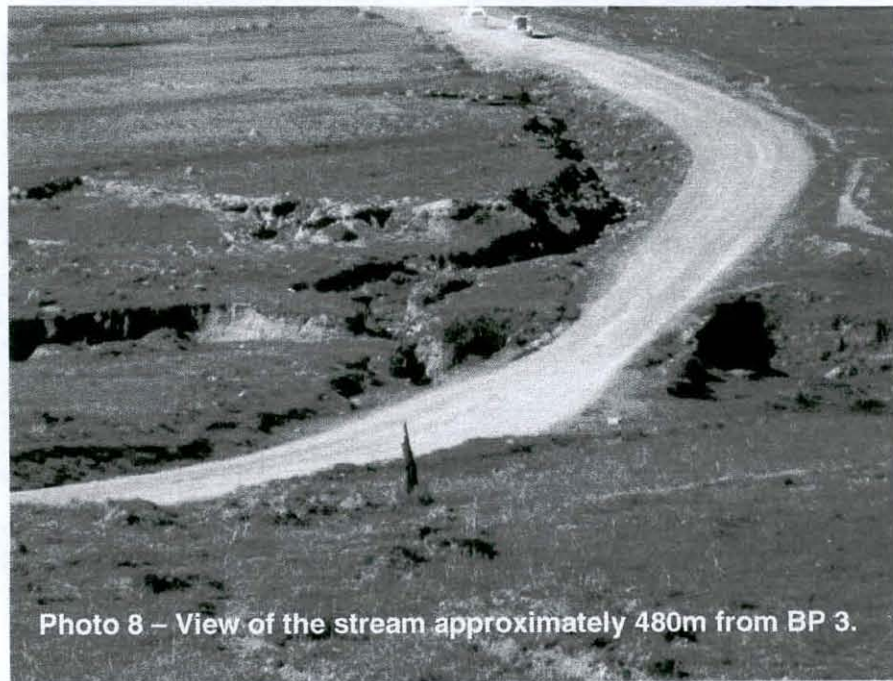


Photo 8 – View of the stream approximately 480m from BP 3.

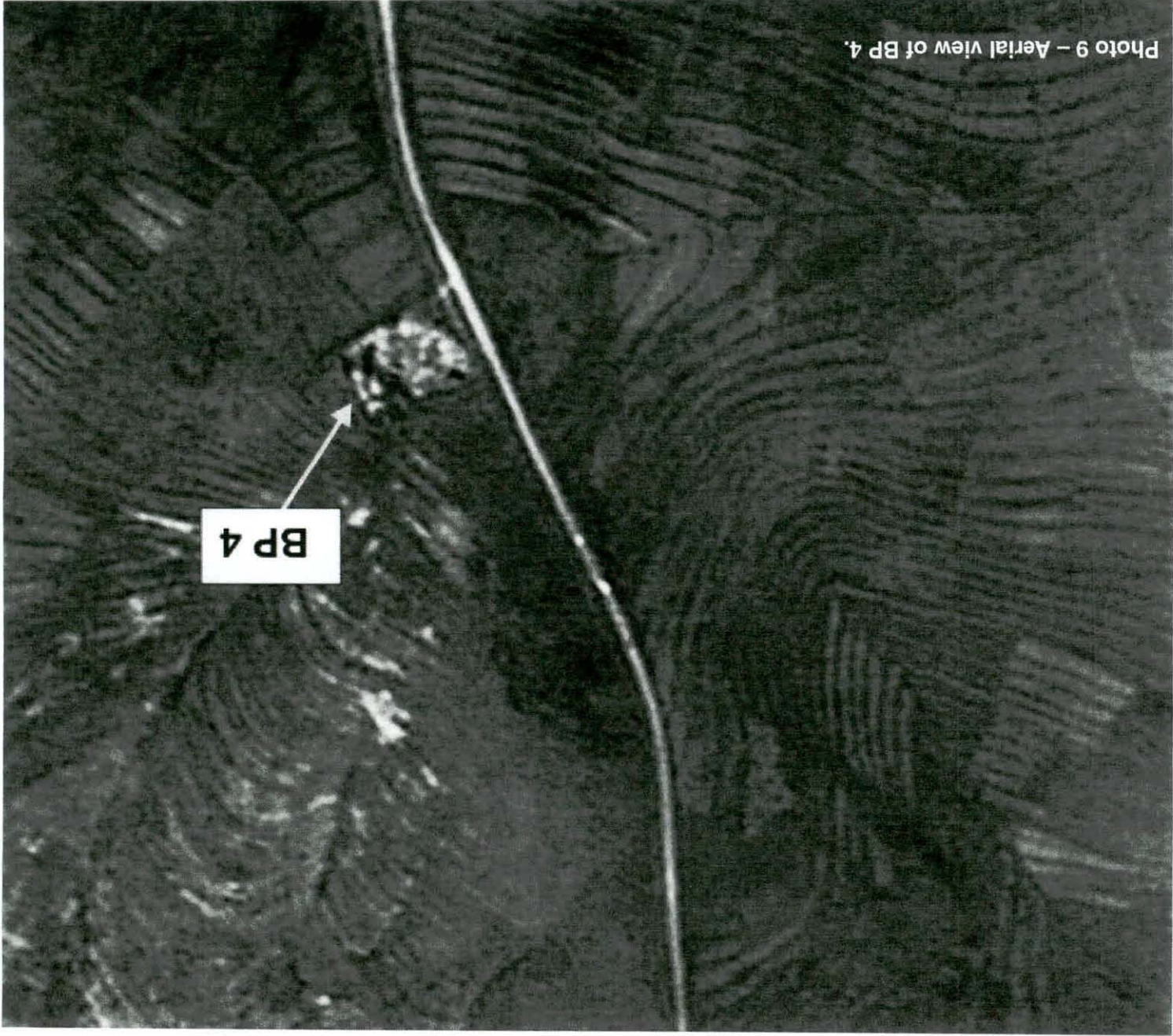


Photo 9 - Aerial view of BP 4.



Photo 10 – View of BP 4 from West.



Photo 11 – Closer view of BP 4.

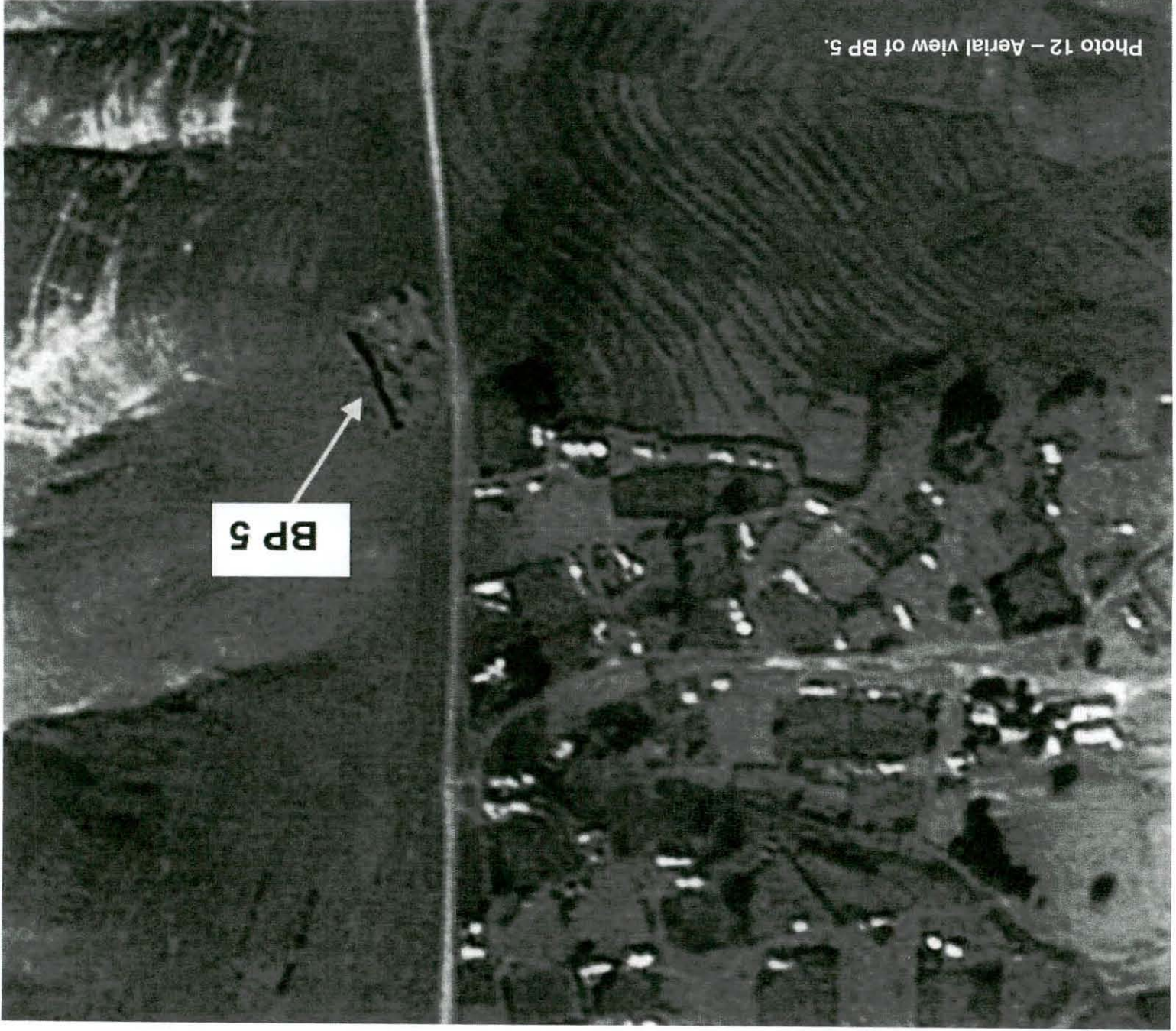


Photo 12 - Aerial view of BP 5.

BP 5



Photo 13 - BP 5

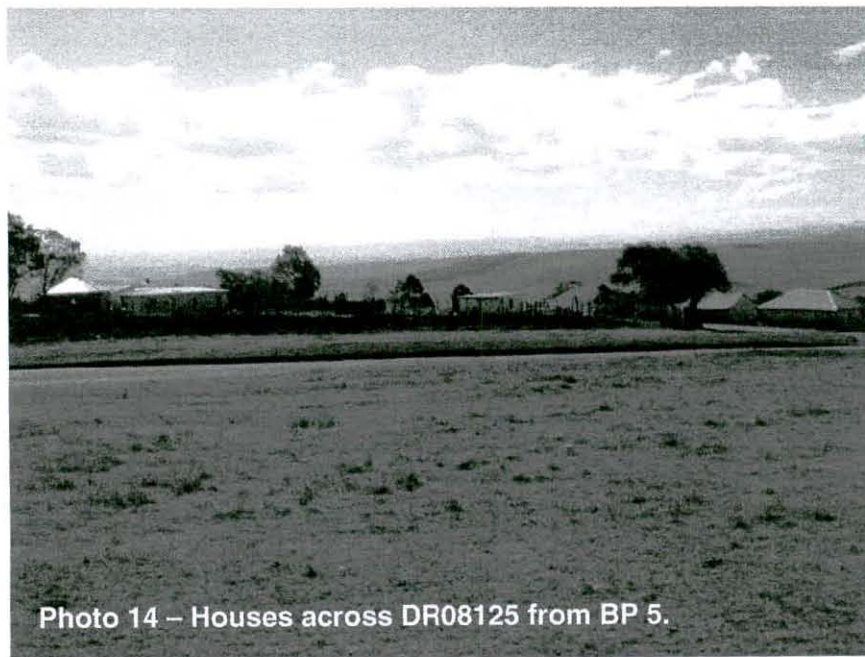


Photo 14 - Houses across DR08125 from BP 5.



Photo 15 - Aerial view of BP 6.

BP 6

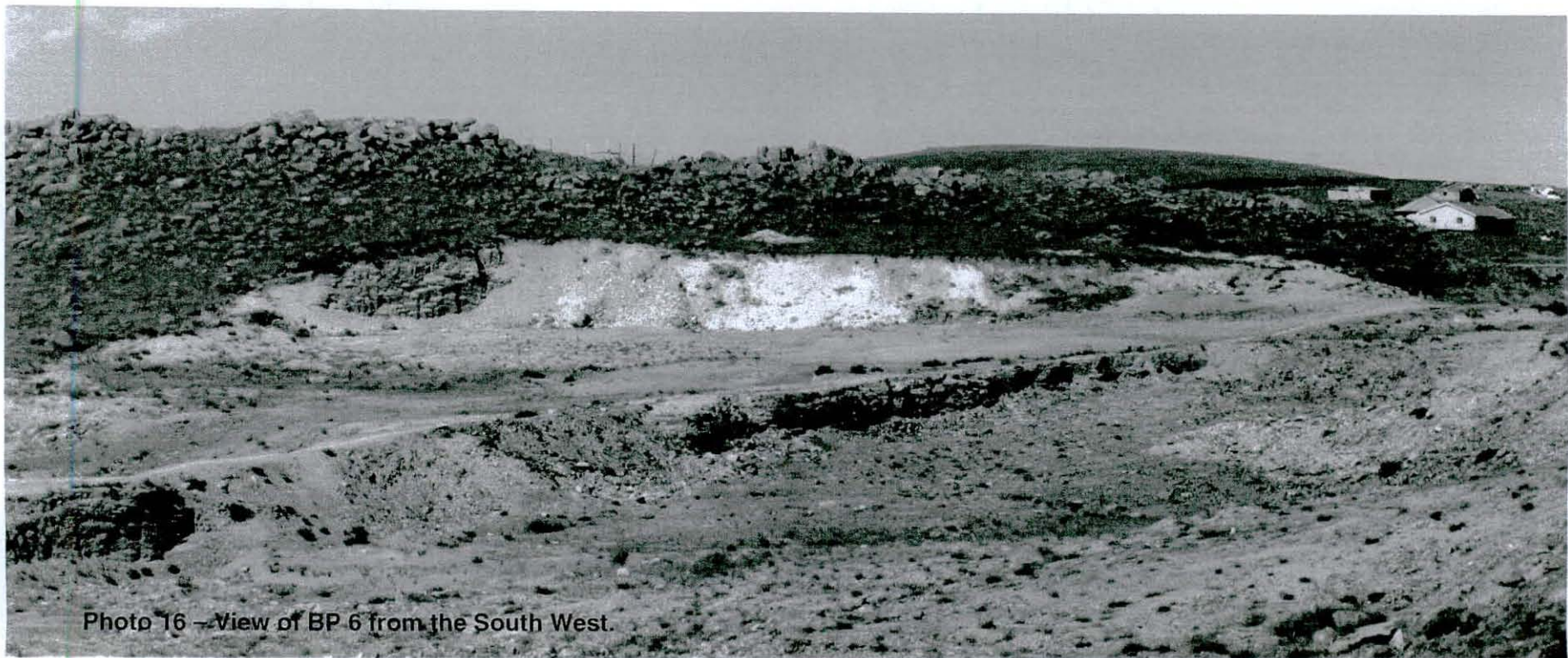


Photo 16 – View of BP 6 from the South West.

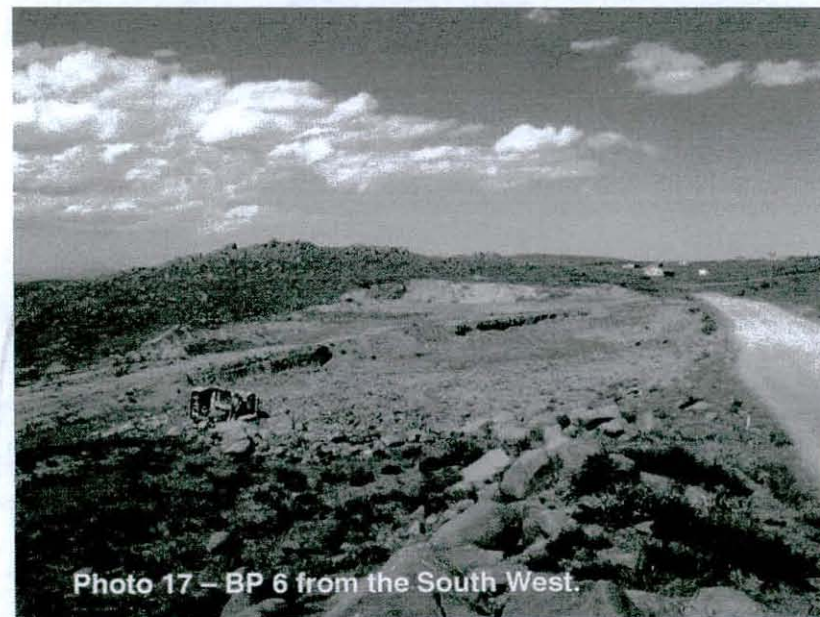


Photo 17 – BP 6 from the South West.

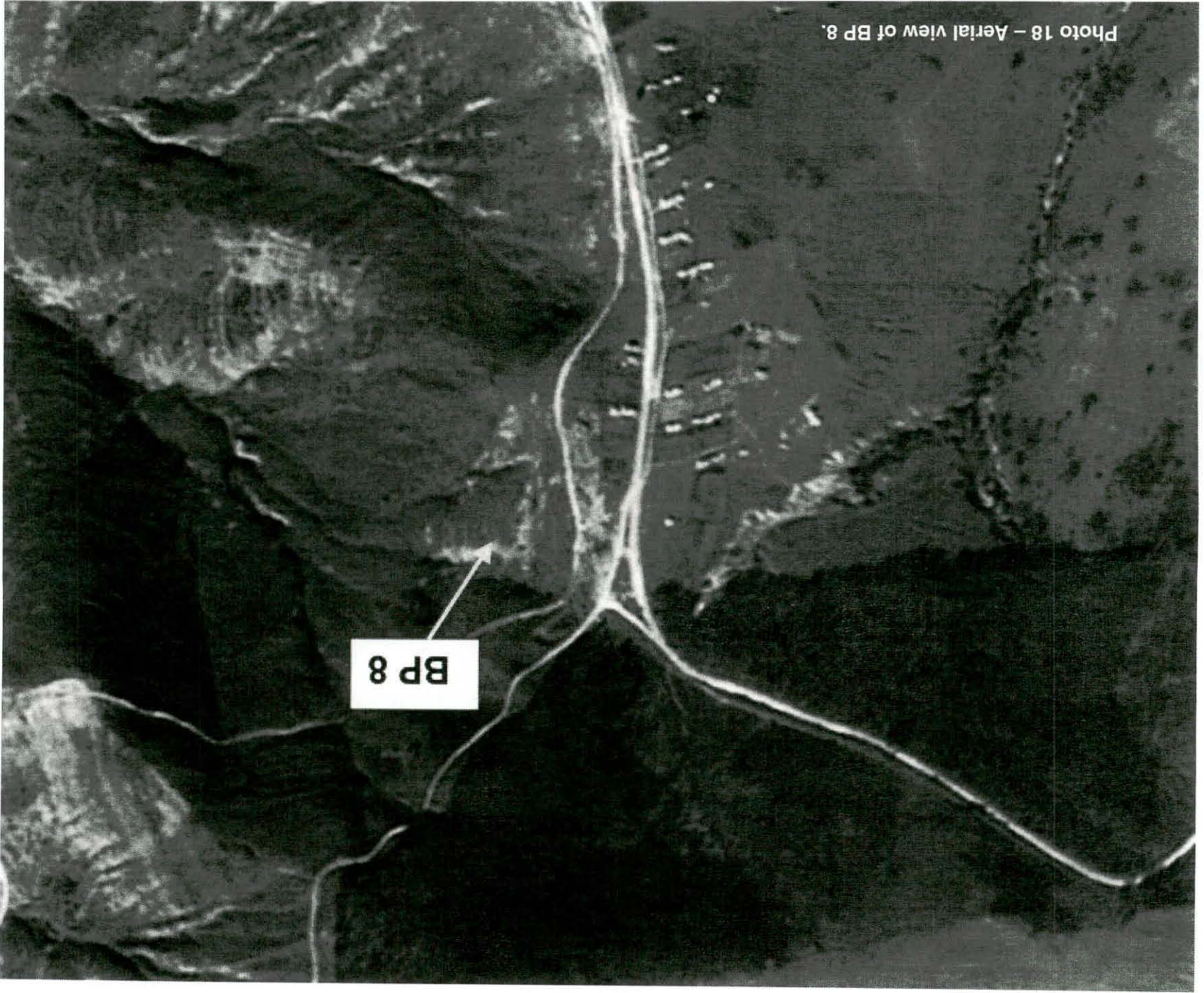


Photo 18 - Aerial view of BP 8.

BP 8



Photo 19 – View of BP 8.

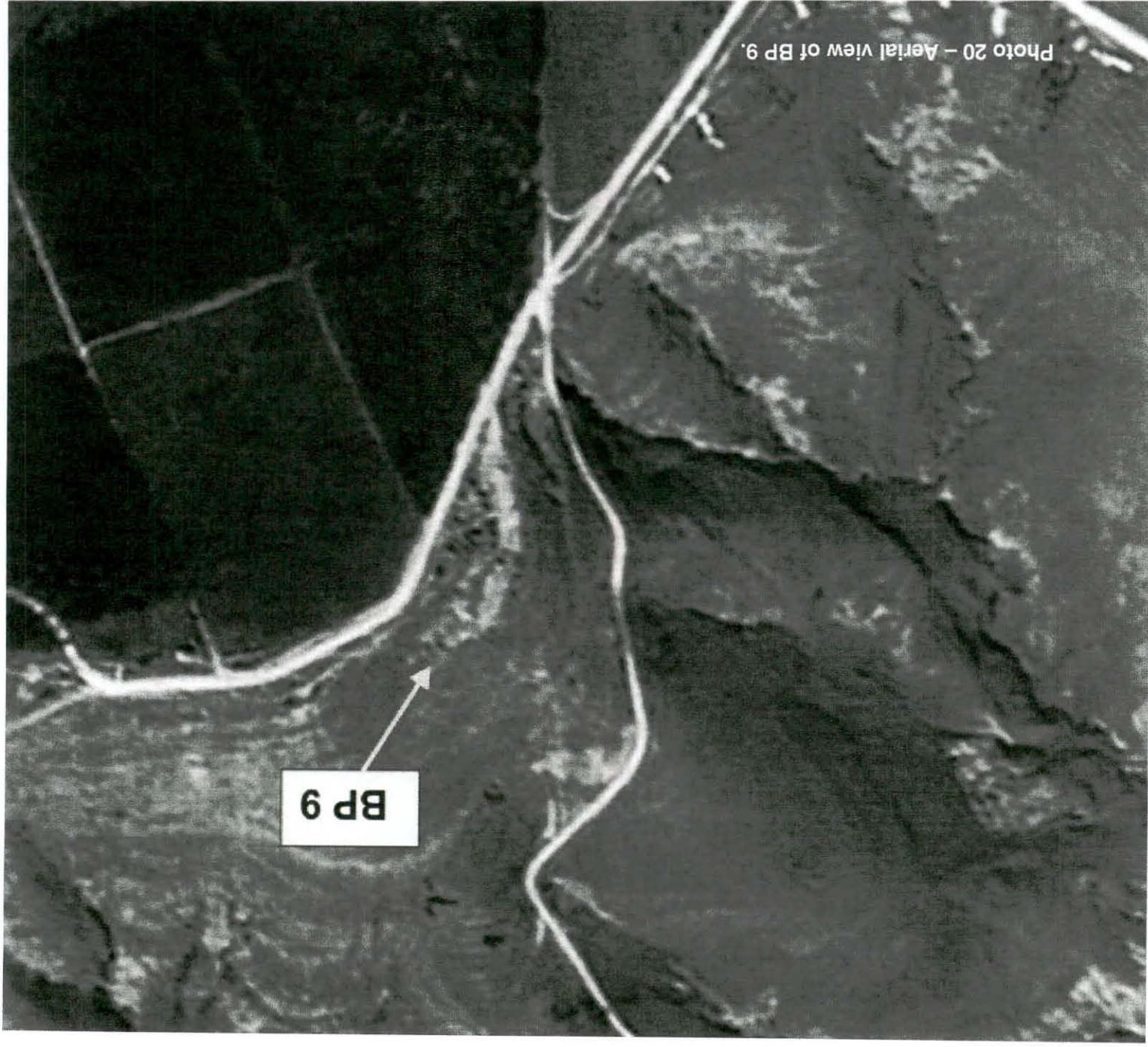
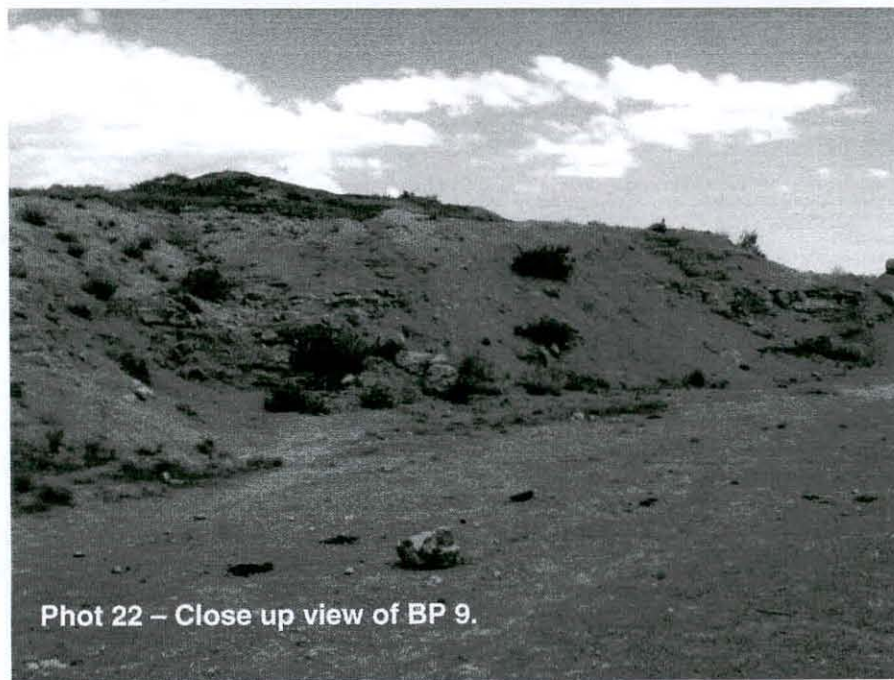


Photo 20 - Aerial view of BP 9.

BP 9



Photo 21 – View of BP 9.



Phot 22 – Close up view of BP 9.

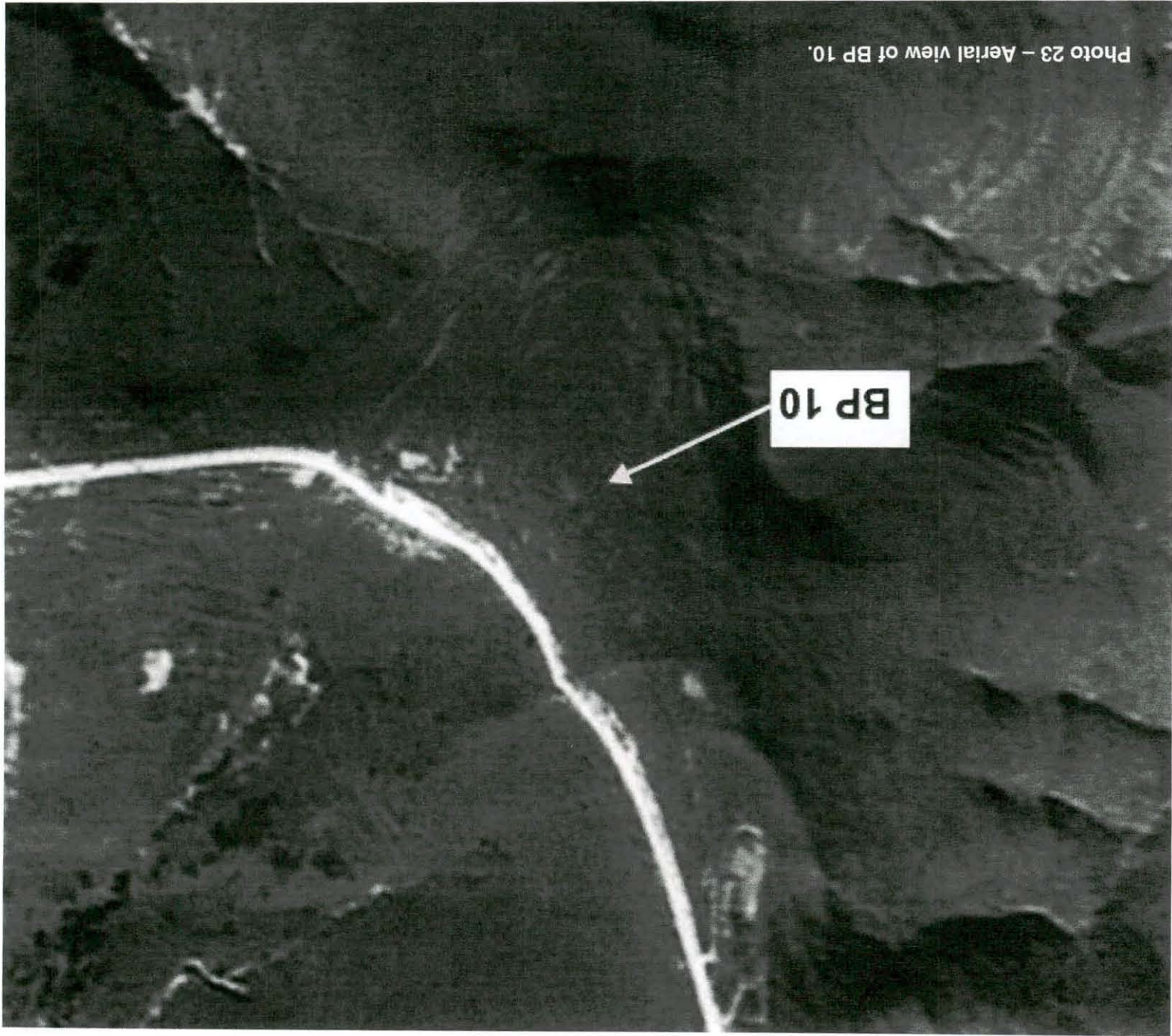


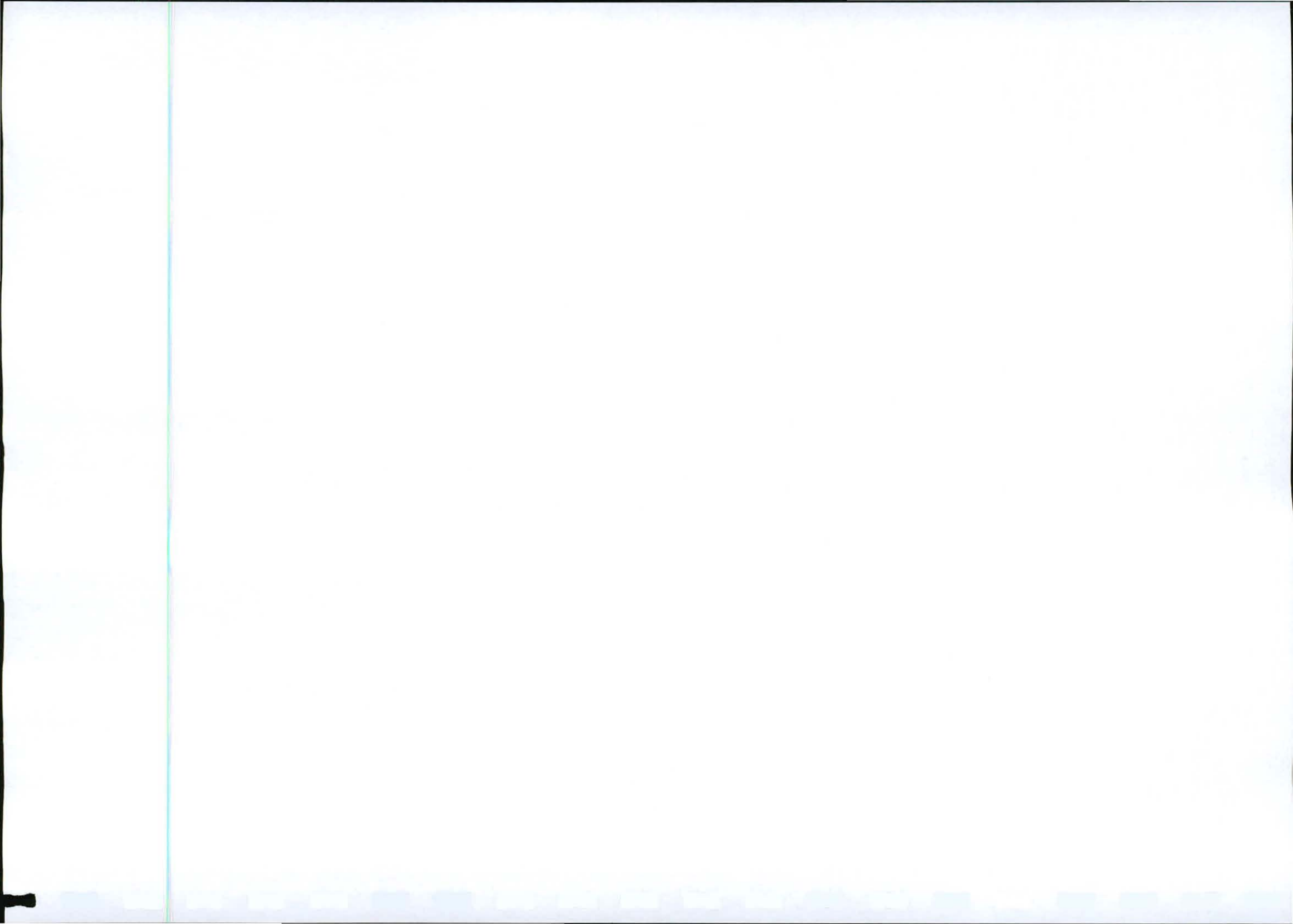
Photo 23 - Aerial view of BP 10.



Photo 24 – View of BP 10.

APPENDIX C

PUBLIC CONSULTATION





TERRECO CC

Geotechnical, Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA ^{SIPETY HOSPITAL ROAD}

NAME: ZWELONKE TJEJE

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 2

CONTACT DETAILS

TEL: FAX:

CELL: 083 95 97 548 EMAIL:

ADDRESS:

COMMENTS/CONCERNS:

I'm not the owner of the house but I will inform him. The project is a good project and we have been waiting for a long time

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the Upgrading of the R61 road

SIGNATURE: Z. T

DATE: 21/10/09



TERRECO CC

Geotechnical Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA ^{SIPETA HOSPITAL} ROAD

NAME: NOLWANDILE MALKHAPHA

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 2

CONTACT DETAILS

TEL:		FAX:	
CELL:		EMAIL:	
ADDRESS:	<u>Saketeni</u>		

COMMENTS/CONCERNS:

I dont have a problem as long as the borrowpit will be rehabilitated after use.

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the Upgrading of the R61 road

SIGNATURE: N. MALKHAPHA

DATE: 21/10/09



TERRECO CC

Geotechnical Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA ^{SIPETU HOSPITAL ROAD}

NAME: NOSIREKO MOUNDEWA

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 2

CONTACT DETAILS

TEL:		FAX:	
CELL:	078 227 1405	EMAIL:	
ADDRESS:	SIOAKENI VILLAGE		

COMMENTS/CONCERNS:

Thank you for informing me about the proposal, I don't have a problem as the project will create job opportunities for us.

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the Upgrading of the R61 road

SIGNATURE: [Signature]

DATE: 21/10/09



TERRECO cc

Geotechnical, Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA SIPETU HOSPITAL ROAD

NAME: SIZWE MDUNJELWA

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 2

CONTACT DETAILS

TEL:		FAX:	
CELL:	073 5527716	EMAIL:	
ADDRESS:	SIDELANI		

COMMENTS/CONCERNS:

Dont have a problem if it will be rehabilitated

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the Upgrading of the R61 road

SIGNATURE: Sizwe DATE: 21/09/09



TERRECO cc

Geotechnical, Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA ^{SIPETU HOSPITAL}
ROAD

NAME: Thembele Mgoqi

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit 5

BORROWPIT No: 5

CONTACT DETAILS

TEL:		FAX:	
CELL:		EMAIL:	

ADDRESS: Ncunbe villege

COMMENTS/CONCERNS:

Mayisetyenziswe le kurani xa kuzawenziswe
indlele kuba sypasokale xa kufuneka
sibe esibhedlele

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the
Upgrading of the R61 road .

SIGNATURE: T Mgoqi DATE: 21/10/09



TERRECO cc

Geotechnical, Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBA ^{SIPETY HOSPITAL ROAD}

NAME: Gladys Ntakana

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit 5

BORROWPIT No: 5

CONTACT DETAILS

TEL:		FAX:	
CELL:	0837743579	EMAIL:	
ADDRESS:			

COMMENTS/CONCERNS:

Siyayifune itha mayise tyenziswe
 ikwani ikwani

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the Upgrading of the R61 road

SIGNATURE: G. Ntakana

DATE: 21/10/09



TERRECO cc
Geotechnical, Environmental and Waste Management

SCOPING QUESTIONNAIRE

PROJECT: UPGRADE OF THE R61 ~~FROM MAGUSHENI TO MZAMBA~~ ^{SIPETU HOSPITAL ROAD}

NAME: NOLUVUYO NYATHIELA

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 6

CONTACT DETAILS

TEL:		FAX:	
CELL:		EMAIL:	
ADDRESS:			

COMMENTS/CONCERNS:

I dont have a problem as the road is very bad

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the

Upgrading of the R61 road

SIGNATURE: Denny

DATE: 21/10/09



PROJECT: UPGRADE OF THE R61 FROM MAGUSHENI TO MZAMBAJ ^{SIPETU HOSPITAL} ROAD

NAME: Nokwandisa Futhwa

RELATIONSHIP TO PROJECT: Nearby resident to Borrowpit

BORROWPIT No: 8

CONTACT DETAILS

TEL:		FAX:	
CELL:	<u>0732872460</u>	EMAIL:	
ADDRESS:	<u>Nkompolweni</u>		

COMMENTS/CONCERNS:

Parents not around to comment but
dont foresee any problems

I hereby give my consent for the borrowpit near to my house to be mined for material for use in the

Upgrading of the R61 road

SIGNATURE: N. Futhwa

DATE: 21/10/09

Colin Hartley

From: Duncan Scott [scott@d@terreco.co.za]
Sent: 24 February 2010 01:39 PM
To: Nick Matebese
Subject: Consultation regarding use of borrowpits on state owned land

Dear Sir,

As per our previous discussions in similar matters I hereby inform you that the Department of Roads and Transport (Eastern Cape) wishes to extract material for roads construction from a selection of borrowpits. A total of nine areas will be affected. Two of those areas will be new borrowpits while the others will be extensions of existing borrowpits.

Table 1 below indicates the name, size and coordinate of each borrowpit that will be mined.

Table 1: Sipetu Borrowpits - Names, Sizes and Coordinates		
BP name	BP size	Coordinates
1	1.46ha	S 31° 06' 00.0" E 29° 11' 16.8"
2	1.17ha	S 31° 06' 42.1" E 29° 10' 48.2"
3	1.37ha	S 31° 06' 58.4" E 29° 10' 48.2"
4	0.94ha	S 31° 07' 25.9" E 29° 08' 16.1"
5	1.45ha	S 31° 06' 55.1" E 29° 08' 07.2"
6	1.22ha	S 31° 04' 58.5" E 29° 06' 58.7"
7	N/A – included in original survey but no longer going to be mined as a borrowpit.	
8	1.13ha	S 31° 00' 40.1" E 29° 02' 36.9"
9	1.49ha	S 31° 00' 09.4" E 29° 00' 52.9"
10	1.22ha	S 31° 00' 16.8" E 28° 59' 37.0"

All of the material that is extracted from those sites will be used exclusively for the upgrade of the DR08125 and DR08447 roads between the N2 National Road and the Sipetu Hospital. The intersection with the N2 is approximately 7km to the south west of Mount Frere in the Eastern Cape. Local community members will be employed as part of the work force that will be utilised during the upgrade project during which the existing gravel road will be replaced with a surfaced road.

Therefore the benefit to the local community will be two fold in that they will have improved vehicular access in the area (and specifically to the Sipetu Hospital facilities) as well as deriving income and skills during the project construction period.

Terreco as the environmental consultants appointed with assisting the Department of Roads and Transport with the necessary environmental application will be making the necessary application to the Department of Economic Development and Environmental Affairs (DEDEA) as well as the Department of Minerals and Energy.

The construction of the upgraded road will necessitate a widening of the road surface and surrounding road reserve in certain areas. This is because the alignment is not considered ideal in terms of on road safety for both drivers and pedestrians travelling along the route.

As a consequence it is necessary for the Department of Roads and Transport to apply to the DEDEA for authorisation to undertake the proposed project.

This email forms part of the public participation exercise that is undertaken to ensure that all affected parties and stakeholders are informed of the proposed project.

Please do not hesitate to contact me should you have any further queries in this regard.

Regards,

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APPENDIX D

IMPACT ASSESSMENT TABLES

