

PROSPECTING WORK PROGRAMME

Applicant: Vast Mineral Sand (Pty) Ltd.

Registration number: 2016/376575/07

PROPOSED PROSPECTING ON FARMS:

Farm Name	Farm No.	Portion	Registration District
Farm	1	RE	NAMAKWA
Farm	1	8	NAMAKWA
Farm	1	9	NAMAKWA
Farm	155	0	NAMAKWA

PROSPECTING WORK PROGRAMME FOR HEAVY MINERALS ON FOUR FARMS SITUATED WITHIN THE NAMAKWA REGISTRATION DISTRICT, NORTHERN CAPE PROVINCE

(PROPOSED ALEKOR PROSPECTING RIGHT APPLICATION)

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Job No. 1249-Heavy Minerals 001
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LIST OF ABBREVIATIONS

DMR	Department of Mineral Resources
ECO	Environmental Control Officer
EMP	Environmental Management Programme
GPS	Global Positioning System
MPRDA	Mineral and Petroleum Resources Development Act, Act 28 of 2002
PWP	Prospecting Work Programme

INTRODUCTION AND SCOPE OF THE APPLICATION

This Prospecting Work Programme (PWP) has been compiled as one of the requirements for a Prospecting Right Application in terms of the Mineral and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA).

The purpose of the prospecting programme is to establish the presence of economic deposits of heavy minerals on four farms located in the Namakwa Registration District (Figure 1) that are the subject of this Application, namely the Remainder of Farm No. 1, Portion 8 and 9 of Farm 1 and the Remainder of Farm No 155, Port Nolloth. If economically recoverable resources can be proven on the properties, the Applicant may decide to apply for a Mining Right in terms of the MPRDA.

This PWP has been prepared in accordance with Regulation 7(1) of the MPRDA Regulations (Government Gazette No. 26275 of 23 April 2004), read together with the “Guideline for a Prospecting Work Programme to be submitted for Applications for a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act, Act 28 of 2002”, published by the Department of Mineral Resources (DMR).

Prospecting will take place over a 60-month (five year) period, and will initially comprise of non-invasive methods (Phase 1), which will include surface mapping and surveying of the deposit(s). Phase 2 will comprise of invasive prospecting methods, and will respectively include auger and RC drilling of material. Phases 3 and 4 will respectively comprise of off-site sample processing and data analysis, and decision making. Phase 5 will include rehabilitation. Some of these phases will be undertaken in parallel.

The proposed prospecting methods are described in **Section G** below.

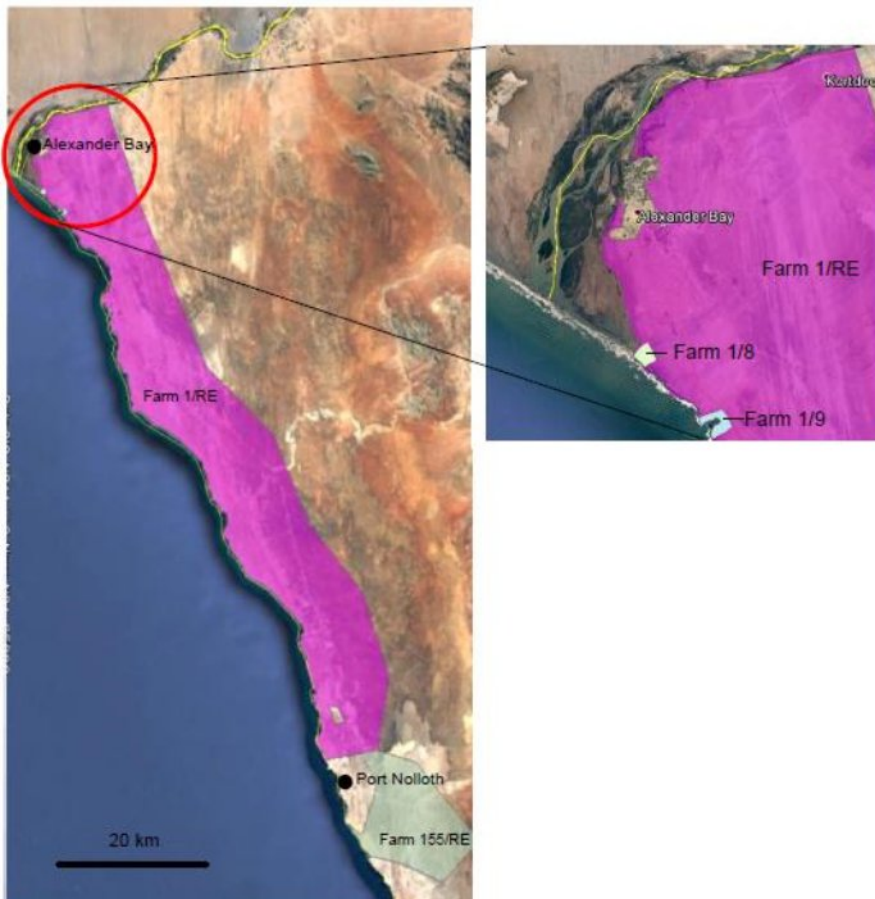


Figure 1: Plan showing farms involved in the application

STRUCTURE OF THIS PROSPECTING WORK PROGRAMME

Regulation 7(1) of the MPRDA (Government Gazette No. 26275 of 23 April 2004) specifies that a Prospecting Work Programme should contain the following information.

The table of contents of this Prospecting Work Programme follows the requirements of the above MPRDA Regulation 7(1) requirements.

<p>“(a) The full particulars of the Applicant;</p> <p>(b) The plan contemplated in regulation 2(2), showing the land to which the Application relates;</p> <p>(c) The registered description of the land to which the Application relates specifying the farm name and subdivision;</p> <p>(d) The mineral or minerals to be prospected for;</p> <p>(e) A geological description of the land substantiated by a geological map;</p> <p>(f) A description of how the mineral resource and mineral distribution of the prospecting area will be determined through</p> <p style="padding-left: 20px;">(i) the prospecting work to be performed;</p> <p style="padding-left: 20px;">(ii) a geochemical survey to be carried out; and</p> <p style="padding-left: 20px;">(iii) a geophysical survey to be undertaken;</p> <p>(g) A description of the prospecting method or methods to be implemented that may include:</p> <p style="padding-left: 20px;">(i) any excavations, trenching, pitting and drilling to be carried out;</p> <p style="padding-left: 20px;">(ii) any bulk sampling and testing to be carried out; and</p> <p style="padding-left: 20px;">(iii) any other prospecting methods to be applied;</p> <p>(h) All planned prospecting activities must be conducted in phases and within specific timeframes.</p> <p>(i) technical data detailing the prospecting method or methods to be implemented and the time required for each phase of the proposed prospecting operation;</p> <p>(j) details with documentary proof of -</p> <p style="padding-left: 20px;">(i) the Applicant's technical ability or access thereto to conduct the proposed prospecting operation; and</p> <p style="padding-left: 20px;">(ii) a budget and documentary proof of the Applicant's financial ability or access thereto, which may include but is not limited to the following:</p> <p style="padding-left: 40px;">(aa) Loan agreements entered into for the proposed prospecting operation;</p> <p style="padding-left: 40px;">(bb) Resolution by a company to provide for the finances required for the proposed prospecting operation; and</p> <p style="padding-left: 40px;">(cc) any other mechanism or scheme providing for the necessary finances for the proposed prospecting operation;</p> <p>(k) a cost estimate of the expenditure to be incurred for each phase of the proposed prospecting operation where the expenditure must be broken down into -</p> <p style="padding-left: 20px;">(i) direct prospecting costs;</p> <p style="padding-left: 20px;">(ii) labour costs;</p> <p style="padding-left: 20px;">(iii) costs pertaining to the rehabilitation and management of environmental impacts; and</p> <p style="padding-left: 20px;">(iv) any other direct cost</p> <p>(m) an undertaking, signed by the Applicant, to adhere to the proposals as set out in the prospecting work programme.</p> <p>(2) The prospecting work programme referred to in sub-regulation (1) shall form part of the prospecting right when such right is granted.”</p>

SECTION A: FULL PARTICULARS OF THE APPLICANT

The full particulars of the applicant are provided in Table 1 below.

Table 1: Full particulars of the Applicant.

Applicant Name:	Vast Mineral Sands (Pty) Ltd.
Company Registration Number:	2016/376575/07
Trading as:	Vast Mineral Sands (Pty) Ltd.
Surname of Contact Person:	Pienaar
Forename(s) of Contact Person:	Marius
Postal Address of Contact Person:	3 Guardian Crescent , Somerset West, 7130 MJH Pienaar
Telephone Number:	+27844437119
Fax Number:	
Cell Number:	+27844437119
E-mail address:	vikinghk3@gmail.com
Physical Address of Contact Person:	3 Guardian Crescent, Somerset West, 7130
Company Documents of Applicant Company	See Annexure 1 .

SECTION B: PLAN AS CONTEMPLATED IN REGULATION 2(2) OF THE MPRDA

Table 2 below lists the content requirements of the plan of the proposed prospecting area, as are contemplated in Regulation 2(2) of the MPRDA. Refer to Figure 1 for the Regulation 2(2) plan.

Table 2: Content of the Regulation 2 (2) plan.

Requirement	Yes / No
Co-ordinates and spheroid of the land to which the application relates	Yes
North Point	Yes
Scale to which the plan has been drawn	Yes
Location, names, and numbers of the land to which the application relates	Yes
Extent of the land to which the application relates	Yes
Boundaries of the land to which the application relates	Yes
Surface structures and registered servitudes where applicable	Yes
Topography of the land (by means of contours)	No
Locality plan at appropriate scale	Yes
Plan is signed and dated by the applicant	Yes

SECTION C: REGISTERED DESCRIPTION OF THE LAND

The properties that are covered by this Prospecting Right Application, as well as the registered owner(s) and Title Deed numbers of the properties are provided in Table 3 below.

Table 3: Properties comprising this Prospecting Right Application.

Farm Name	Farm No.	Portion	Registration District	Registered Owner/s	Title Deed Number	21-digit Code
Farm	1	RE	Namakwa	Richtersveld Sida Hub Communal Prop Assoc	T23364/2015	C05300000000000100000
Farm	1	8	Namakwa	ALEKKOR S O C LTD	T63832/2013	C05300000000000100008
Farm	1	9	Namakwa	ALEKKOR S O C LTD	T63832/2013	C05300000000000100009
Farm	155	0	Namakwa	Richtersveld Sida Hub Communal Prop Assoc	T78688/2008	C05300000000015500000

SECTION D: MINERAL(S) TO BE PROSPECTED

The minerals that are proposed to be prospected are tabulated in **Table 4** below.

Table 4: Minerals proposed to be prospected.

Mineral / Commodity	Code	Type Code	Type description
Heavy Minerals (General)	HM	HM	Heavy Minerals
Rutile (Heavy Mineral)	Rt	HM	Heavy Minerals
Ilmenite (Heavy Mineral)	Il	HM	Heavy Minerals
Zircon (Heavy Mineral)	Zr	HM	Heavy Minerals
Monazite (Heavy Mineral)	Mz	HM	Heavy Minerals
Leucoxene (Heavy Mineral)	Lx	HM	Heavy Minerals

SECTION E: GEOLOGICAL DESCRIPTION OF THE LAND

The application properties are situated just south of the Orange River mouth approximately 300km north-west of Springbok, along the Northern Cape West Coast.

The Orange River Mouth is situated to the north of the properties. This river was, at the time of deposition, an embayment with a westward opening to the Atlantic Ocean. The substrate geology of the Orange River Mouth and surroundings consists of Precambrian and Palaeozoic basement rocks. The most prominent is volcano-sedimentary metamorphites, gneisses of the mid-Proterozoic Namaqua Metamorphic Complex, and limestone, dolomite and phylites of the Pan African Gariep Group. Tertiary marine, lacustrine and aeolian sand overlie the basement rocks. The surficial sands and dunes are white to pale yellow in colour.

The palaeo-geography of the Orange River Mouth and the coastal area to the south was a dominant controlling factor for heavy mineral enrichment. The west-facing bays south of the river mouth, bounded by a southern headland, formed the ideal environment for heavy mineral deposition. Terraces that were formed during fluctuating sea level conditions during the last 15 million years established distinct units of Lower (0 – 10m above mean sea level), Middle (17 - 26m amsl), Upper (37 – 47m amsl) and Grobler (64 – 84m amsl) terraces represent palaeo- beaches. These palaeo-beaches with

palaeo-embayments experienced extremely high concentrations of heavy mineral accumulations. The two beach deposits are overlain by a sequence of aeolian sand that accreted onto the margin of the regressing sea-levels.

Garnet and ilmenite are the dominant heavy minerals found in the area, followed by pyroxene, zircon, rutile, monazite and titaniferous alteration products after ilmenite. The high titanium content of the ilmenite (51%) and predominantly almandine garnet suggest metamorphic source rocks. The heavy minerals within the project area are therefore most likely derived from the Namaqualand Metamorphic Complex, which is their primary source.

E.1 Site-specific Geology

The inferred high concentrations of heavy mineral deposits are located within a matrix of unconsolidated superficial sands and dunes. The heavy minerals were most likely sourced from rocks of the Namaqualand Metamorphic Complex comprising migmatite, gneiss, and ultramafic rocks, which are present in the northern sector of the proposed prospecting area.

Rocks of the Namaqualand Metamorphic Complex form the footwall of the deposit and is overlain by intermittent marine gravel deposits, and a continuous sheet deposit of marine sand and aeolian sand forming a succession of unconsolidated gravel and sand ranging between 1 and 30m in thickness. The heavy minerals occur in the sand fraction in the gravels and sand deposits. The slimes and coarse tailings dumps at the Alexkor plants that are not in use any more also provides a good prospecting target.

SECTION F: BRIEF PROJECT DESCRIPTION

The Applicant proposes to prospect for heavy minerals by means of non-invasive methods such as desktop analyses, remote sensing, surface mapping and surveying of the deposit, and by means of invasive methods such as truck-mounted RC drills and hand-held auger drilling.

The proposed non-invasive prospecting methods will cover the entire prospecting lease area, while invasive prospecting (drilling) will be concentrated in those areas recognised as having potential for the concentration of heavy minerals. Where possible, existing mine roads and tracks will be utilised for access to the various prospecting sites, and environmentally sensitive areas will be avoided as far as is practically possible. All prospecting will be conducted in terms of the directives as contained in the Environmental Management Programme (EMP), which will be submitted to the DMR as part of the Prospecting Right Application process.

No processing of materials will take place on site and all sample preparation and analyses will take place in off-site laboratories and other existing off-site facilities.

SECTION G: PROSPECTING METHOD

The proposed prospecting activities will be undertaken in six main phases as described below.

G.1 Phase 1: Non-invasive Prospecting

Non-invasive prospecting will cover both farms, and will include the following sub-phases:

- **Phase 1a** will involve the following **desk-top activities**: data acquisition from government and private sources, and analysis of any existing/previous prospecting and drilling data,

satellite (Landsat and ASTER) imagery, aerial photos, and terrain data, as well as geological map interpretation. The synthesis and interpretation of such information will contribute towards providing a clear picture of the location and characteristics of the heavy mineral deposit/s, and will guide the in-field prospecting programme.

- **Phase 1b: Surface mapping** will be conducted by the project geologist (Dr J Hattingh) and assistants, and will take place over a period of 2 months. Such mapping will encompass GPS controlled traverses, and aerial photo mapping.
- **Phase 1c** will involve **surveying** and **pegging of the anticipated deposit**. This sub-phase will include the following activities:
 - Surveying of the mapped area to be prospected. A grid (250m x 250m) will be marked on the map, after which those positions will be marked in the field by a surveyor with labelled droppers (pegs). Shallow (12m depth) hand-held auger drilling will take place at these positions (see Phase 2a below).
 - Access routes to the drill sites will also be located (existing roads will be used wherever possible).
- **Phase 1d:** The information gained from the above non-invasive prospecting may result in a review of the proposed drilling positions/prospecting grid. These specific areas cannot be determined at the time of writing of this Prospecting Work Programme. In order to expedite this procedure, the following is recommended as a way forward:
 - The EMP (to be submitted as part of the Prospecting Right Application) should identify no-go areas based on information such as sensitive vegetation (if available).
 - At the time of identifying the target areas, a specialist botanist should be appointed to confirm the presence or absence of any critically endangered or endangered vegetation types, bearing in mind that the majority of the area is expected to comprise Namaqualand Strandveld, which (although not statutorily conserved) is not considered by the South African National Biodiversity Institute (SANBI) to be an endangered vegetation type.
 - If the prospecting auger drill hole grid requires adjustment, then such amendments/appendices (to both the Prospecting Work Programme and the EMP) will be lodged with the DMR. Note however that although the positions of the drill holes may alter slightly, the method and environmental impact mitigation measures are not expected to require any revision.

G.2 Phase 2: Invasive Prospecting (Drilling)

Phase 2 will be initiated after the detailed analysis of all the Phase 1 results have been collated, and by convening the appropriate persons to conduct the following task:

- Educate/train the staff conducting the prospecting programme on environmental issues (the details of which are discussed in the EMP).

Invasive prospecting includes the following sub-phases:

- **Phase 2a:** Drilling will either be conducted by a truck-mounted RC drill rig or by a hand-held engine-powered auger drill. Approximately 500 RC drill holes are anticipated to be drilled to a maximum depth of approximately 15m each.

The RC drill uses compressed air that raises the drilled material to the surface for sampling purposes. The hand-held auger has a 30cm core barrel at the end of the drill rods that catches the sediment as is progress in a batch approach.

- **Phase 2b:** This sub-phase will involve a second round of infill drilling. Additional drill holes will be drilled to check for continuity of the heavy mineral deposits. The number of additional holes required will be determined by the results of the first phase of drilling (Phase 2a). The same drilling methods will be implemented as described for Phase 2a above.

G.2.1 Drilling Grid Layout

The Applicant's consulting geologists have, through past experience and aerial photo interpretation, been able to roughly delineate the heavy mineral reserve and as such will reduce the application area to encompass specific portions of the two farms. Access to the drill sites will be by existing farm roads or fence line tracks wherever possible.

G.2.2 Drilling Programme

The prospecting right is required for a period of five years (60 months). Note that this application has been lodged for 60 months to allow for any delays which may occur or any further amendments which may be required.

Drilling is proposed to take place in two 1-month periods separated by an analysis phase. The first phase of drilling will require the drilling of approximately 500 drill holes, followed by a second round of infill drilling. This will allow for phased chemical analyses of the samples, and a decision after each period as to whether to continue with the prospecting programme or not. It is anticipated that the drill rig will require between two and three hours to complete drilling activities on each drill site. Note that only one of each drill type (auger and one reverse circulation) will be on site at any one time.

See **Section H** for the proposed prospecting schedule.

The contract(s) to conduct the aforementioned drilling and bulk sampling programme/s will be put out to tender once the Prospecting Right approval has been granted by the DMR.

No bulk sampling will be conducted as the drilling provides sufficient sample for the test work required for heavy minerals chemical and metallurgical analyses.

G.3 Phase 3: Sample Processing and Data Analysis

Drill samples will be taken from the material raised by the drilling process before the hole is backfilled in reverse order. Samples will be removed by a 4x4 "bakkie".

This phase will also consist of an analysis of all the information received from the invasive and non-invasive prospecting activities. The economic feasibility studies, required to determine the economic and metallurgical viability of the project will be conducted by analysing the results of the data gathered from the prospecting programme, and the pre-feasibility studies will be finalised.

The sample processing will serve to assess the expected mine yield and will guide the design aspects for potential future mining, if a measured resource is the outcome of this processing programme.

G.4 Phase 4: Decision-making

The following activities will be undertaken as part of this final phase (Phase 4) of the proposed Prospecting Work Programme:

- The results of the non-invasive and invasive prospecting methods will be fully assessed and analysed to obtain a detailed understanding of the geology of the project area. This will entail computer generation of models to simulate the deposit.
- Various reports, as are required in terms of the MPRDA, will be submitted to the DMR throughout the prospecting process.
- The Applicant (in consultation with the project team) will make a decision regarding the way forward. The Applicant will have three possible options to choose from regarding the way to proceed, namely:
 1. Submit a Mining Right Application: Should prospecting yield positive results, a Mining Right Application may be lodged with the DMR.
 2. Continue prospecting: If the prospecting results are non-conclusive, the Applicant might decide to continue prospecting. Should such a course of action be chosen, an application for a Prospecting Right Renewal may have to be lodged with the DMR, if required. Continued prospecting could include additional auger drilling and/or bulk sampling.
 3. Discontinue the entire operation: If the results of the prospecting activities are negative, the Applicant will most likely decide to discontinue the entire operation. Should this option be chosen, the Applicant will be required to conduct full rehabilitation of the drill and bulk sampling sites and any other disturbed areas. A Closure Application will, in this event, be lodged with the DMR.

G.5 Phase 5: Rehabilitation

Each drill hole site will be rehabilitated as prospecting proceeds. Rehabilitation will be in accordance with the directives contained in the EMP.

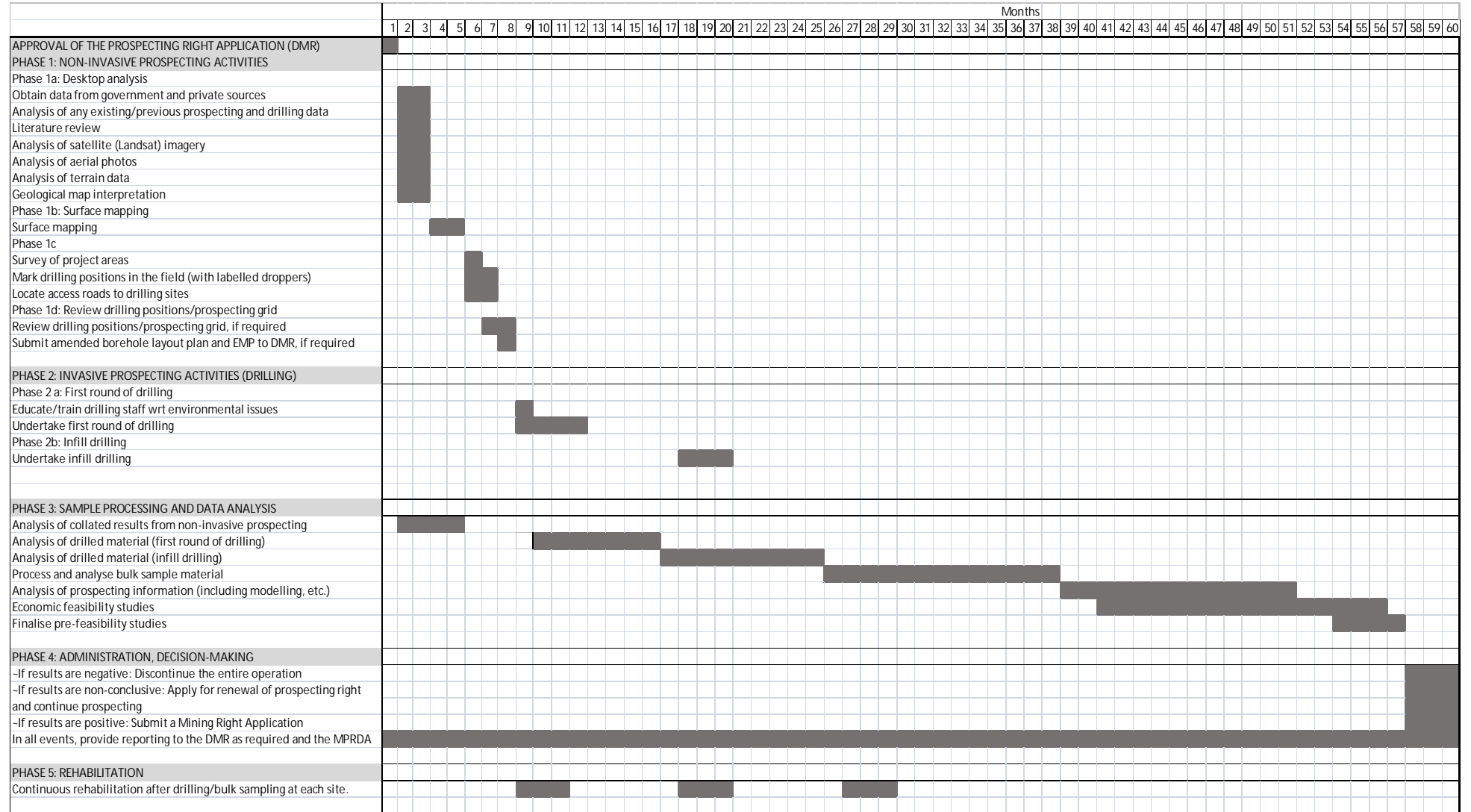
The EMP also describes mitigation measures for the environmental impacts that might be associated with the proposed drilling activities.

It should be noted that some of the proposed prospecting phases will be undertaken in parallel, as are reflected in the prospecting schedule (**Section H** below).

SECTION H: PROSPECTING SCHEDULE

The proposed prospecting schedule is provided in **Table 5** below.

Table 5: Prospecting Schedule.



SECTION I: TECHNICAL DATA DETAILING THE PROSPECTING TIME AND METHOD

Technical data quantifying the extent of invasive prospecting, as are available at this stage, are provided below. Note that the phases below may at times run concurrently.

I.1 Drilling

Drilling is proposed to include the following activities:

Phase 2a: It is planned to drill 500 drill holes using a truck mounted RC drill rig or a hand-held auger drill to an average depth of approximately 15m. The total drilling depth (Phase 2a only) will therefore be in the order of 1600m.

Phase 2b: Additional auger drill hole areas will be identified for infill drilling. The number of additional holes required will be determined by the results of the first phase of drilling (Phase 2a). It is anticipated that the infill drilling will also be conducted to an average depth of approximately 15m.

I.2 Bulk Sampling

No bulk sampling is proposed to take place.

I.3 Time required for each phase

Refer to **Section H** above for the proposed time schedule of the prospecting activities. The prospecting right is required for a period of 60 months (five years).

SECTION J: DOCUMENTARY PROOF OF THE APPLICANT'S ABILITY

J.1 The Applicant's Technical Ability

The prospecting will be conducted under the management of Creo Design's chief consulting geologist, Dr Johan Hattingh (short profile attached to this PWP as **Annexure 2A**). In addition, the potential end user of the heavy minerals, Sheng Kang Ning (SKN) will assist with the laboratory analysis and the bench-scale metallurgical test work (letter attached to this PWP as **Annexure 2B**).

The Applicant and the consulting geologist have been involved in the mining and prospecting industry for a number of years, and have in that time gained sufficient knowledge in the safe and optimal methodologies associated with prospecting and rehabilitation practices. The Applicant has also appointed PHS Consultants to assist with environmental issues/management of this Prospecting Application.

The Applicant will appoint competent and well-known contractors to conduct the drilling on site. All other supporting and logistical equipment, infrastructure and staff, will be available on and off-site as required.

J.2 The Applicant's Financial Ability

The following is required in terms of Regulation 7 (1) of the MPRDA:

- “(j) details with documentary proof of -
- (i) the Applicant's technical ability or access thereto to conduct the proposed prospecting operation; and
 - (ii) **a budget and documentary proof of the Applicant's financial ability or access thereto**, which may include but is not limited to the following:
 - (aa) Loan agreements entered into for the proposed prospecting operation;
 - (bb) **Resolution by a company to provide for the finances required for the proposed prospecting operation**; and
 - (cc) any other mechanism or scheme providing for the necessary finances for the proposed prospecting operation;”

The expected budget for the prospecting activities over a 60-month period is shown in **Section K** below. The total prospecting budget is in the order of R6 723 550 (including VAT), which over the 60-month Prospecting Right Application period amounts to an average of ~R112 060 per month.

The source of such funding is guaranteed by the majority share holder Consolidated Minerals PTE. Refer to **Annexure 3** (Financial Ability) for the undertaking by Consolidated Minerals to provide the funds.

Also, refer to **Annexure 4** for the resolution from Vast Mineral Sands (Pty) Ltd. allowing the signatory the power to sign the undertaking provided in **Section L** below.

SECTION K: COST ESTIMATE OF THE EXPENDITURE PER PHASE

The estimated costs to complete the prospecting and rehabilitation of the site in terms of the programme of activities defined in this PWP are summarised in Table 6 below.

Table 6: Cost estimate of the expenditure of each prospecting phase.

Notes and Assumptions:					
Estimated number of initial boreholes: 500					
Estimated number of infill boreholes (to be defined by initial drilling): 300 (Calculation: 500/2/3)					
	Direct Operating Costs (ZAR)	Labour Costs (ZAR)	Rehabilitation and Environmental Management Costs (ZAR)	Other Direct Costs (e.g. Consultants) (ZAR)	SUBTOTALS (ZAR)
Rehabilitation Fund Guarantee	0,00	0,00	150 000,00	0,00	150 000,00
PHASE 1: NON-INVASIVE PROSPECTING ACTIVITIES					
Phase 1a: Desktop Analysis					
Obtain data from government and private sources	30 000,00	0,00	0,00	12 000,00	42 000,00
Analysis of any existing/previous prospecting and drilling data	0,00	0,00	0,00	20 000,00	20 000,00
Literature review	0,00	0,00	0,00	20 000,00	20 000,00
Analysis of satellite (Landsat) imagery, aerial photos, terrain data, geological maps, etc.)	20 000,00	0,00	0,00	24 000,00	44 000,00
Phase 1b: Surface Mapping					
Surface mapping	19 400,00	0,00	0,00	384 000,00	403 400,00
Phase 1c: Surveying and Pegging of the Deposit					
Survey of the project area					
Mark drilling positions in the field (with labelled droppers)	11 700,00	0,00	0,00	100 000,00	111 700,00
Locate access routes to drilling sites	5 650,00	0,00	0,00	20 000,00	25 650,00
Phase 1d: Review drilling positions/prospecting grid					
Review drilling positions/prospecting grid, if required	0,00	0,00	0,00	40 000,00	40 000,00
Submit amended borehole layout plan and EMP to DMR, if required	3 200,00	0,00	0,00	32 000,00	35 200,00
SUBTOTAL (Phase 1)	89 950,00	0,00	0,00	652 000,00	741 950,00
PHASE 2: INVASIVE PROSPECTING ACTIVITIES					
Phase 2a: First round of drilling					
Educate/train drilling staff wrt environmental issues	0,00	0,00	0,00	9 600,00	9 600,00
Undertake first round of drilling (R420/m)	1 890 000,00	0,00	0,00	128 000,00	2 018 000,00
Transport samples off site for analyses	16 000,00	0,00	0,00	0,00	16 000,00
Analysis of results	0,00	0,00	0,00	80 000,00	80 000,00
Phase 2b: Infill Drilling					
Undertake infill drilling (R420/m)	1 260 000,00	0,00	0,00	0,00	1 260 000,00
Transport samples off site for analyses	16 000,00	0,00	0,00	0,00	16 000,00
Rehabilitate all drill sites and access routes	150 000,00	0,00	0,00	0,00	150 000,00
SUBTOTAL (Phase 2)	3 332 000,00	0,00	0,00	217 600,00	3 549 600,00
PHASE 3: SAMPLE PROCESSING AND DATA ANALYSES					
Analysis of collated results from non-invasive prospecting	2 000,00	0,00	0,00	20 000,00	22 000,00
Analysis of drilled material (first round of drilling)	10 000,00	0,00	0,00	100 000,00	110 000,00
Analysis of drilled material (infill drilling)	10 000,00	0,00	0,00	100 000,00	110 000,00
Process and analyse bulk sample material	1 000 000,00	0,00	0,00	0,00	1 000 000,00
Analysis of prospecting information (including modelling, etc.)	0,00	0,00	0,00	500 000,00	500 000,00
Economic feasibility studies	0,00	0,00	0,00	300 000,00	300 000,00
Finalise pre-feasibility studies	0,00	0,00	0,00	100 000,00	100 000,00
SUBTOTAL (Phase 3)	1 022 000,00	0,00	0,00	1 120 000,00	2 142 000,00
PHASE 4: ADMINISTRATION AND DECISION-MAKING					
-If results are negative: Discontinue the entire operation	0,00	0,00	0,00		
-If results are non-conclusive: Apply for renewal of prospecting right and continue prospecting	0,00	0,00	0,00	60 000,00	60 000,00
-If results are positive: Submit a Mining Right Application	0,00	0,00	0,00		
In all events, provide reporting to the DMR as required and to the MPRDA	0,00	0,00	0,00	80 000,00	80 000,00
SUBTOTAL (Phase 4)	0,00	0,00	0,00	140 000,00	140 000,00
TOTAL (ZAR)	4 593 950,00	0,00	150 000,00	2 129 600,00	6 723 550,00

SECTION L: UNDERTAKING

I, Marius Pienaar the undersigned, authorized thereto by Vast Mineral Sands (Pty) Ltd., have studied and understand the contents of this Prospecting Work Programme and duly undertake to adhere to the conditions as set out therein, unless specifically or otherwise agreed to in writing.

Signed at Somerset West on this 1 day of February 2017



MJH Pienaar

Director and Duly Appointed Signatory
Designation