



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

NAME OF APPLICANT:

Jagersfontein Developments (Pty) limited

REFERENCE NUMBER:

PROSPECTING WORK PROGRAMME

**SUBMITTED FOR A PROSPECTING RIGHT
APPLICATION WITH BULK SAMPLING**

**AS REQUIRED IN TERMS OF SECTION 16 READ TOGETHER WITH
REGULATION 7(1) OF THE MINERAL AND PETROLEUM RESOURCES
DEVELOPMENT ACT (ACT 28 of 2002)**

STANDARD DIRECTIVE

All applicants for mining rights are herewith, in terms of the provisions of Section 16 and in terms of Regulation 7(1) of the Mineral and Petroleum Resources Development Act, directed to submit a Prospecting Work Program, strictly under the following headings and in the following format together with the application for a prospecting right.

REGULATION 7.1.(a): FULL PARTICULARS OF THE APPLICANT

Table 1: Applicant's Contact Details

ITEM	COMPANY CONTACT DETAILS
Name	Jagersfontein Developments (Pty) Ltd
Tel no	<u>018 297 2090</u>
Fax no:	<u>018 297 2083</u>
Cellular no	<u>0734631747</u>
E-mail address	<u>compliance@jagersfontein.co.za</u>
Postal address	<u>PO Box 1673</u>

Table 2: Consultant's Details

ITEM	CONSULTANT CONTACT DETAILS (If applicable)
Name	Pieter Meyer
Tel no	018 297 2090
Fax no:	018 297 2083
Cellular no	073 4631 747
E-mail address	Meyerpieter87@gmail.com
Postal address	Po Box 1673, Potchefstroom, 2520

**1. REGULATION 7(1)(b): PLAN CONTEMPLATED IN REGULATION 2(2)
SHOWING THE LAND TO WHICH THE APPLICATION RELATES**

See attached plan which shows the area of land applied for.

Note: the following area is excluded from the prospecting right area applied for:

Id	Longitude (X)	Latitude (Y)
1	25.4364	-29.7767
2	25.4360	-29.7779
3	25.4343	-29.7775
4	25.4348	-29.7762
5	25.4634	-29.7767

2. REGULATION 7(1)(c): THE REGISTERED DESCRIPTION OF THE LAND TO WHICH THE APPLICATION RELATES

SUBDIVISION 1 (KINGS PADDOCK), SUBDIVISION 16 AND THE REMAINING EXTENT OF THE FARM JAGERSFONTEIN 14 (EXCLUDING TAILINGS DUMPS)

3. REGULATION 7(1)(d) and (e): THE MINERAL OR MINERALS TO BE PROSPECTED FOR

Table 4.1: Minerals to be prospected for

ITEM	DETAIL
Type of mineral(s)	Diamond (DIA), Diamond General (D)
Type of minerals continued	Diamonds Alluvial (DA)
Type of minerals continued	Diamonds Kimberlite (DK)
Locality (Direction and distance from nearest town)	500 meters from town Jagersfontein
Extent of the area required for prospecting	3851,7800 Hectares
Geological formation	Alluvial Deposits, Kimberlite pypes

4.2 Description why the Geological formation substantiates the minerals to be prospected for (provide a justification as to why the geological formation supports the possibility that the minerals applied for could be found therein)

The farm Jagersfontein 14 is situated on the Karoo Supergroup, The geology is mainly of the Adelaide Subgroup of the Beauford Group in the northeast of the farm and the Tierberg Formation of the Ecca Group southwest. Both of these lithologies are intruded by an extensive Karoo dolerite sill. The Adelaide Subgroup is made up of blue-grey and purple mudstone inter-bedded with yellow sandstone and siltstone, mudstone and sandstone. The Tierberg Formation is made up of blue-grey to dark grey shale with carbonate concretions, subordinate sandstone and siltstone in the upper part.

Two soil types are common in this area. The Hutton soil is common in the north while the Tierberg soil is more common in the south. This prospecting area is on an existing old mine, extensively mined up to 1972.

4.3 Attach a geological map that justifies the description why there is a possibility that the minerals applied for could occur on the land concerned.

See attached plan which shows the area of land applied for.

4. REGULATION 7(1)(f): A DESCRIPTION OF HOW THE MINERAL RESOURCE AND MINERAL DISTRIBUTION OF THE PROSPECTING AREA WILL BE DETERMINED

(i) The prospecting work to be performed:

Jagesfontein Development will conduct the prospecting work using its own staff and specialist contractors as required. This will be done in a phased approach with each phase dependant on the results of the previous one.

The first step in determining the presence and distribution of any mineral resource on the farm will be to locate kimberlites. This work will commence with a comprehensive review of all geological and geophysical information available on the farm to determine the correct techniques to be used in the search of kimberlites, in addition to the techniques that have been used already. Once a suitable geophysical technique for the are has been identified the area will be surveyed using that technique to define targets for initial drilling and / or minor excavating.

If kimberlites are discovered using these techniques, further drilling and / or minor excavation will be conducted to test them for economic potential.

Finally Bulk sampling (by means of large diameter drilling and or excavations) of any potentially economic deposits would be required in order to define a mineral resource. If the results of bulk sampling were to be encouraging, a pre-feasibility study would be conducted in order to determine the viability of their economic exploitation. If warranted, mining feasibility studies will be initiated during which additional drilling and sampling may be undertaken to provide additional information for the studies. Experience has shown that it can take upward of 2 years to execute mining feasibility studies.

(ii) Geochemical surveys to be carried out see regulation 7(1)(g),(h) and (i) below for technical detail; and

- (iii) Geophysical surveys to be carried out see regulation 7(1)(g),(h) and (i) below for technical detail.

Due to the dynamic nature of diamond exploration, the work-programme may have to be modified, extended or curtailed as results and data become available.

AND

REGULATION 7(1)(h): ALL PLANNED PROSPECTING ACTIVITIES MUST BE CONDUCTED IN PHASES AND WITHIN SPECIFIC TIMEFRAMES

Detailed in this section is a broad outline of the planes exploration work programme, in numbered phases, which should be read in conjunction with the summary and estimated cost presented in Table 1, as well as the timeframes, described in Section I.

- 1) Desk top studies and geological interpretation of all available geological data including any historic soil sampling data and any airborne geophysical and remote sensing data.
- 2) Target detection by means of geophysical surveying.
- 3) Desktop studies involving interpretation of the geophysical survey results in order to plan the next phase of work in detail.
- 4) Testing of targets
 - a) First state small diameter (up to 165mm) percussion exploratory drilling and/or minor pitting and/or minor trenching, aimed at testing targets identified as being of interest, with the aim of proving the presence of kimberlite.
 - b) Processing of drill or rock samples for the various types of test as required, such as petrography and physical roc properties.
- 5) Desktop studies involving interpretation of the initial drilling (or excavations) and testing in order to plan the next phase of work in detail.
- 6) Delineation and initial testing of kimberlite(s).
 - a) Detailed geophysical surveys over kimberlites, for delineation and borehole positioning purposes. This would be conducted using a variety of survey techniques such as magnetometry, electromagnetic methods and gravity.
 - b) Second stage small diameter (up to 165mm) percussion and core drilling and/or excavations. Aimed at determining the extend of any kimberlite discovered and whether it has the potential to host diamonds. This involves collecting material for testing, such as further petrographic examination, HMA and MiDA. This stage could include downhole geophysical logging.
 - c) Processing of drill samples for the various types of test as required.

- 7) Desktop studies involving interpretation of all drilling (or excavations) and test results, in conjunction with geophysical survey results, in order to plan the next phase of work in detail. Data available in this stage will be used to construct a Geological model to allow for size estimation. All the above, combined with the thickness of overburden, micro diamond analyses, petrographic interpretations and mineral chemistry analyses will be used to assess the potential of any discoveries and therefore justification of any further work.
- 8) Bulk sampling (initial evaluation)
 - a) Carry out a bulk sampling programme to test for the presence of macro-diamonds. This may take the form of trenching or pitting or large diameter (up to 450mm) drilling. The number of excavations and/or boreholes and quantity of material to be collected will be based on the size of the kimberlite(s) and their internal geology such as facies variations.
 - b) Processing of macro-diamonds samples to obtain a concentrate for diamond sorting in a dense media separation (DMS) sampling plant.
 - c) Recovery of macro-diamond from the concentrate to obtain an initial grade estimate at the diamond recovery laboratory in Johannesburg.
- 9) Based on a review of initial bulk sampling results and other information, the preliminary economic potential of the kimberlite(s) will be determined. Depending on the outcome of this, a larger bulk sampling exercise will be required to provide sufficient information for a pre-feasibility study.
- 10) Bulk sampling (evaluation sampling)
 - a) Carry out a bulk sampling programme in order to determine the economic potential of any kimberlite(s) discovered. This may take the form of trenching or pitting or large diameter (up to 450mm) drilling. Again, the number of excavations and/or boreholes and quantity of material to be collected will be based on the size of the kimberlite(s) and their internal geology such as facies variations. This programme will determine the macro-diamond content and quality to evaluate the economic potential of any kimberlite(s) discovered.
 - b) Processing of macro-diamond samples to obtain a concentrate for diamond sorting in a DMS sampling plant.
 - c) Recovery of macro-diamonds from the concentrate and the classification of these diamonds (in terms of size and quality) at the diamond recovery laboratory in Johannesburg.
- 11) Pre-feasibility study. Based on a review of bulk sampling results and other information such as the geological model and geotechnical information, the mineral resource will be defined and a decision made as to further work required.
- 12) Mining feasibility studies. Depending on the value of the estimated resource determined in Phase 15, a mining feasibility study may be conducted by a multidisciplinary team. This would include all relevant socio-economic and environmental impact studies, with the aim being to define mineral reserves and in support of an application for a mining right.
- 13) Supplementary drilling, sampling, geological modelling and more dressing studies may be required to obtain additional information in order to finalise the mining feasibility study.

AND

REGULATION 7(1)(i): TECHNICAL DATA DETAILING THE PROSPECTING METHOD OR METHODS TO BE IMPLEMENTED AND THE TIME REQUIRED FOR EACH PHASE OF THE PROPOSED PROSPECTING OPERATION

The parameters, amount and timeframes for the work planes or estimated per phase are described below using the phase descriptions from Section H. this is summarised in Table 1.

- 1) Desktop studies and planning – 1 month.
- 2) Target detection by geophysical surveying – 9 ground gravity blocks – 5 weeks.
- 3) Desktop studies involving interpretation of the geophysical survey results – 2 weeks.
- 4) Testing of targets
 - a) First stage small diameter (up to 165mm) percussion exploratory drilling, with coring if required. The work required for this stage is estimated as 10 boreholes to 50 metres depth (total 500m), with a total of 20 meters of coring if possible – 3 weeks.
 - b) Processing of drill or rock samples – 2 months.
- 5) Desktop studies including interpretation of the initial drilling – 2 months.
- 6) Delineation and initial testing of kimberlite(s).
 - a) Detailed geophysical surveys over kimberlites. This is estimated as one detailed block using a variety of techniques – 4 weeks.
 - b) Second stage small diameter percussion and core drilling and/or small excavations. The work required for this stage is estimated as 8 boreholes to 50 metres depth (total 400m), with some coring as required – 1 month.
 - c) Processing of drill samples – 6 months.
- 7) Desktop studies involving interpretation of all drilling and planning of further work – 3 months.
- 8) Bulk sampling (initial evaluation for presence of macro-diamonds).
 - a) Bulk sampling programme. This may be conducted by large diameter drilling or pitting, or a combination of both, in order to recover a total of 200 tonnes. Assuming that pitting is used, two pits of up to 7 x 6 metres (42 sq. m) plus ramps of 20 x 4 metres (80 sq. m) each will be required – 2 months.
 - b) Processing of 200 tonnes of macro-diamond samples – 3 months.
 - c) Recovery of macro-diamonds from 3000 kg of concentrate – 4 months.
- 9) Review of results and planning – 3 months.
- 10) Bulk sampling (evaluation sampling to obtain a parcel of diamonds for valuation).

- a) Bulk sampling programme. This would be conducted by pitting, possibly supplemented by large diameter drilling. The quantity of material to be extracted would depend upon the results of the initial bulk sampling (phase 8). Assuming that only pitting is used and that 40,000 tonnes is required, ten pits of up to 20 x 8 metres (160 sq. m) plus ramps of 20 x 4 metres (80 sq. m) each will be required – 4 months.
- b) Processing of 10,000 tonnes of macro-diamond samples. Only a very rough estimate of the work required can be provided as this is highly dependent upon the characteristics of the ore – 4 months.
- c) Recovery and assessment of macro-diamonds. Only a very rough estimate of the work required can be provided as this is highly dependent upon the amount of concentrate generated – 12 months.

NOTE: Due to the phases nature of prospecting being dependent on information acquired in earlier phases, it is not possible to estimate quantities of work required beyond this phase. However, based on experience with past projects, rough estimates of duration to complete subsequent phase have been made. This work would be conducted in renewal periods beyond the original five year tenure of prospecting right.

- 11) Pre-feasibility study – 3 months
- 12) Mining feasibility studies – minimum of 18 months including phase 13 as required.
- 13) Supplementary prospecting – duration included in phase 12 above.

**SUMMARY OF WORK PROGRAMME AS REFERRED TO IN REGULATION 7 IN FORCE IN TERMS OF MPRDA 28 OF 2002: REMAINING EXTENT,
SUBDIVISION 1 (KING'S PADDOCK) AND SUBDIVISION 16 OF THE FARM JAGERSFONTEIN NO 14, FAURESMITH DISTRICT FREE STATE**

Time Schedule	Phase of prospecting Activity	Activity	Objective	Estimated duration	Estimated Quantity	Total Cost (Budget)	Direct Prospecting Cost	Estimated labour cost	Rehab and Environ impact cost	Any other direct cost	Resources required
Year 1	1	Desktop studies	To acquire, collect and interpret available geological data and to plan the project	1 Month		13278		13278			1x regional geologist, 1x project manager, 1x GIS specialist
	2	Ground geophysical surveying over sites of possible kimberlite occurrence (target delineation)	To further define sites of possible kimberlite occurrence in order to optimise small diameter drill hole positions	6 weeks	9 blocks	171930	36168	135761			1x project geologist, 2x prospecting operative, 2x prospecting assistants
	3	Desktop studies, data processing, interpretation, planning	To interpret phase 2 activities and to plan the next phase of work	2 weeks		9659		9858			1x regional geologist, 1x project manager, 1x project geologist, 1x geophysicist
	4a	Small diameter (165 mm diameter) exploratory percussion drilling and minor pitting or trenching (testing of targets)	Test for kimberlite at sites identified by phase 2	3 weeks	500m	199989	126838	68151	6000		Drilling contractor, 1x project geologist, 1x prospecting operative, 2 prospect assistants
	4b	Investigation and identification of drill chip samples	To positively identify any suspended kimberlite intersected by phase 4a	2 months		17460	17480				Geoscience centre staff,
	5	Desktop studies, data processing, interpretation, planning	To interpret the results of 4a activities and to plan the next phase of work	2 months		39434		39434			1x regional geologist, 1x project manager, 1x project geologist, 1x geophysicist
	6a	Detailed geophysical surveying using various techniques (delineation of kimberlites)	To assist delineation and determination of morphology of kimberlites and to assist with siting of drill holes	4 weeks	1 block	74877	35083	39794			1x project geologist, 2x prospecting operative, 2x prospecting assistants
	6b	Small diameter (c 165 mm diameter) second stage percussion and core drilling and or minor pitting or trenching (delineation and initial testing of kimberlites targets)	To delineate and determine the morphology of kimberlites, and to recover samples kimberlites defined by phase 4 for analysis.	1 month	400m	215136	102940	106196	4000		Drilling contractor, 1x project geologist, 1x prospecting operative, 2 prospect assistants
	6c	Petrographic, geochemical and micro diamond analysis	To determine the nature of the kimberlites and an indication of possible diamond potential	6 months	2 petrographic samples per hole 200 kg micro diamond sample	183218	183216				Geoscience centre staff, Micro diamond laboratory staff
Year 2	7	Desktop studies, data processing, interpretation and planning	To interpret the results of phase 10 activities, construct a preliminary model for the kimberlites and to plan the next phase of work.	3 months		69151		69151			1x regional geologist, 1x project manager, 1x project geologist, 1x geophysicist
	8a	Pitting or trenching and large diameter (c 450 mm) sample drilling	To recover samples of kimberlite to test for the presence of macro diamonds.	2 months	2 pits / 200 tonnes	126559	60588	45970	20000		Drilling contractor, 2x project geologists, 2x prospecting coordinators, 4 prospect

		(bulk sampling). Method(s) to be used dependent on kimberlite morphology, overburden and topography. Small diameter drilling as required.	Size and number of samples are dependent on size and morphology of kimberlites.							assistants.
	8b	Kimberlite sample treatment	To screen and concentrate the required sample size fractions to facilitate the extraction of macro diamonds.	3 months	200 tonnes	128000	12800			Haulage contractor
	8c	Sample concentrate sorting	To recover macro diamonds	4 months	3000 kg	899475	699475			Geology Macro Diamond Laboratory staff
Year 3	9	Desktop studies, data processing, interpretation, planning	To interpret the results of phase 8 activities, enhance the preliminary model for the kimberlites, conduct a preliminary economic assessment of the kimberlites and to plan the next phase of work.	3 months		130491		130490		1x senior project geologist, 1x project geologist, 1x mineral resource management specialist
	10a	Pitting or trenching and or large diameter (c 450 mm sample drilling (evaluation sampling) small diameter drilling as required.	To recover samples of kimberlite for the recovery of macro diamonds as well as preliminary geotechnical and ore dressing studies. Size and number of samples is dependent on size and morphology of kimberlites.	4 months	10 pits / 40,000 tonnes	557155	303920	153235	100000	Drilling contractor, 2x project geologists, 2x prospecting coordinators, 4 prospect assistants.
	10b	Kimberlite sample treatment	To screen and concentrate the required sample size fractions to facilitate the extraction of macro diamonds	4 months	40,000 tonnes	3000000	3000000			Evaluation services department staff
Year 4	10c	Sample concentrate sorting	To recover macro diamonds to determine diamond grade and quality (mineral resource)	12 months	150,000 kg	2000000	2000000			Evaluation services department staff
Year 5	11	Desktop studies, data processing, interpretation, planning, pre-feasibility studies	To interpret the results of phase 14 activities, enhance the model for the kimberlites, enhance the preliminary economic assessment of the kimberlites and to plan the next phase of work.	3 months		260981		260981		1x senior project geologist, 1 x senior mining engineer, 1x project geologist, 1x mining engineer, 2x mineral resource management specialist

Year 6 -	12	Mining feasibility studies	To undertake detailed design studies by multidisciplinary teams, including socio – economic and environmental impact studies and the assessment of the kimberlite economic viability	>18 months	It is not possible to estimate quantities beyond phase 10, although through previous experience a rough estimate of duration have been made to complete the subsequent phases						Multidisciplinary team of specialists
	13	Detailed drilling, sampling, geological modelling and ore	To provide additional information required for the mining feasibility studies								

PROJECT MATURITY / TIME AND SCOPE OF CONTINUED ACTIVITY AND QUANTITIES WILL BE RESULT DEPENDENT AND SUBJECT TO ONGOING REVIEW AND REVISION

THE TABLE ABOVE INCORPORATES THE INFORMATION IN RESPECT OF REGULATIONS 7(1)(F), 7(1)(G), 7(1)(H) AND 7(1)(I)

5. REGULATION 7(1)(g): A DESCRIPTION OF THE PROSPECTING METHOD OR METHODS TO BE IMPLEMENTED

(i) DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

(These activities do not disturb the land where prospecting will take place e.g. aerial photography, desktop studies, aeromagnetic surveys, etc)

- **Literature Survey:** Acquire and evaluate all historical production and surveys. Mining Engineers and Geologists will process and compile technical data.
- **Geophysical survey:** areas will vary between 500 x 500 to 4x 4km depending on the inferred size of any target. Survey lines will be spaced at a maximum of 50m and readings will be taken at a minimum of 5m intervals along the lines.
- Investigative Survey
- Analytical Desktop Studies involving interpretation of the geophysical survey results in order to plan the next phase of work in detail (Sampling, drilling, bulk sampling)

Conditional upon the successful non invasive prospecting and Mine Health and Safety assessments Invasive activities (drilling, sampling and bulk sampling) will be initiated.

(ii) DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

(These activities result in land disturbances e.g. sampling, drilling, bulk sampling, etc)

- (i) Any excavations, trenching, pitting and drilling to be carried out

Should the prospecting techniques described above indicate that there could be kimberlites on the farm, excavations will be conducted to test for their presence and economic potential. Excavations (trenches, pits and drill holes) will be sited on a practical basis. The dimensions of such trenches and pits shall be limited to the minimum required to achieve the desired results and within regulated specifications/standards.

- (a) Trenching/pitting

Trenching and pitting are suited to resolving of any shallow anomalies that might be identified. The trenches would be oriented across the trends of any linear anomalies. The dimensions of the trenches and pits will be determined by the estimated thickness of surficial cover (overburden) over the body causing the anomaly, i.e. the thicker the cover the deeper the excavation.

- (b) Drilling

Percussion drilling (usually up to 165mm diameter) will be carried out on indicator mineral or geophysical anomalies to test for the presence of kimberlite. The holes may be vertical or inclined,

usually at a maximum angle of 60 degrees. The borehole depth will be determined by the geologist and will depend on the type of anomaly and the geological conditions, including overburden.

Core drilling will only be conducted if kimberlite is discovered, with geological logging being one of the primary objectives of the exercise. The size of core drilled will be determined by such factors as cost, proposed core sampling, the degree of logging required and proposed geotechnical investigations. The orientation of core holes will vary depending on the drilling objective. In the case of delineation drilling, angled core holes will be drilled to give accurate kimberlite / country rock boundaries at depth. Vertical holes will be drilled for geological modelling and / or sampling of the core.

Core holes might be used as pilots for large diameter holes. The geological information provided by the core holes greatly reduces the risk of inappropriate Large Diameter Drilling (LDD) hole locations. Core holes allow for maximum control on information such as overburden thickness, likely

Kimberlite intersections and therefore allow more accurate determinations of likely Large Diameter Drilling holes for diamond recoveries.

LDD, usually up to 450mm diameter, provides good geological and especially grade data. LDD will be conducted when grade assessment is one of the primary objectives of the exercise. The sizes of the boreholes drilled will be determined by such factors as cost, proposed sampling, availability of drilling machines, and the volume of sample required among others. LDD will take place after percussion and core drilling.

(ii) Any bulk sampling and testing to be carried out

(a) Bulk sampling

Bulk samples will be taken over any kimberlites that will be discovered in order to determine their diamond content. Bulk samples of >1000 tonnes will be extracted and store temporarily on the plant. The bulk sample will be put thru Jagersfontein development crusher system and processing (DMS and / or Grease) plant to determine carats per 100 ton. Material might further be collected by trenching, pitting and drilling as described above.

These samples might be used for the following:

(a-i) Micro Diamond Analysis (MiDA)

These samples will be taken for the purpose of proving the presence of diamonds (in this case those that are less than 0.5mm along 2 dimensions). A maximum of 200kg of kimberlite material per facies will be collected, either from bulk samples or from percussion or core boreholes.

(a-ii) Macro Diamond Analysis (MaDA)

Dependant on the micro diamond sample and other analytical results, bulk samples will be taken for the purpose of recovering diamonds that are larger than micro-diamonds. These MaDA results will then be used to estimate the macro grade of the kimberlite, to obtain an

indication of the diamond size distribution and a preliminary indication of diamond quality. A minimum of 100 tonnes of kimberlite material will be collected per sample.

(b) Test

(b-i) Petrographic Examination

Small samples (<2kg) collected from any type of excavation or borehole may be submitted for petrographic examination. Thin sections of the rock are prepared for microscopic description and interpretation by petrographers. Such work can classify the type of rock and its facies. This is useful in constructing a geological model of the kimberlite and is usually carried out in conjunction with the other types of tests described below.

(b-ii) Heavy Mineral Analysis (HMA)

These small samples (~5kg each) would be taken to determine the abundance of the indicator mineral grains and their size distribution within a particular kimberlite, or facies thereof. The chemistry of these indicator minerals may also be determined and interpreted in conjunction with petrographic observations.

(b-iii) Physical properties of any kimberlites and their host rocks

Small amounts of material (<10kg) from excavations and core drilling will be used to carry out physical property test such as density, conductivity and magnetic susceptibility. These test will provide valuable information that might lead to the discovery of more kimberlites on the farm.

(b-iv) Geotechnical test

Geotechnical investigations such as rock quality designation (RQD) and rock strength will be conducted on some of the drill core material. Core drilling will enable accurate geotechnical information to be collected that other forms of drilling will not allow. Additional data that can be obtained from core drilling include dips / bedding, hardness, alteration and faults / joints. Downhole geophysical surveying may also be used to support such logging, as well as to assist with general borehole logging.

(b-v) Ore dressing studies

These are carried out in order to determine the treatment characteristics of the kimberlite to optimise production plant design.

**Commitment to provide addendums in respect of
additional prospecting activities**

I herewith commit to provide the Department of Mineral Resources with an addendum in respect of both the EM Plan and Prospecting Work Programme regarding any future in-fill prospecting required but not described above, prior to undertaking such activities. The addendum will cover all the Regulations as per the Prospecting Work Programme.

I agree that the addendums will provide for similar activities only and if the scope changes I would be required to apply in terms of Section 102 of the MPRDA for an amendment of the Prospecting Work Programme.

Mark with X

ACCEPT	X
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(iii) DESCRIPTION OF PRE-/FEASIBILITY STUDIES

(Activities in this section includes but are not limited to: initial, geological modeling, resources determination, possible future funding models, etc)

(iv) DESCRIPTION OF BULK SAMPLING ACTIVITIES

This activity requires that an application IN TERMS OF Section 20 of the Act is specifically included in your application for a prospecting Right and cannot be proceeded with if such permission is not specifically granted.

(Bulk sampling is a sampling technique ONLY – it cannot be used to conduct mining operations. The following table must be completed for Bulk Sampling)

Table 6.1: Bulk Sampling Activities

ACTIVITY		DETAILS		
Number of pits/trenches planed		10 Bulk samples		
Dimensions of pits/trenches, per pit/ trench	Number of pits/trenches	Length 40m	Breadth 4m	Depth 3m
	10			
Locality		To be determined by phases 1 - 7		
Volume Overburden (waste)		+/- 300-500mm per m ²		
Volume Ore		+/- 1m per m ²		
Density Overburden		1.8 kg/ m ³		
Density Ore		2.7 kg / m ³		
Phase(s) when bulk sampling will be required		8a – 10c		
Timeframe(s)		+/- 2years		

NOTE: Detailed description of the required costs **MUST** be indicated in the cost estimate as per Regulation 7(1)(k)

- The topsoil and overburden removed shall be stored separately next to the relevant block for rehabilitation purposes;
- Gravel excavated is screened to remove the rough boulder material from the fine gravels. The latter is then transported to the processing plant while the rough material is used for initial backfilling
- At the processing plant the gravel will be treated in 2 rotating pans to obtain a concentrate of heavy material. The lighter material is discarded with the puddle, which is a by-product of the diamond recovery processes and treated with a vibrating screen. The slurry is transported to a thickener system where water recovery takes place. 85% of the water is recovered and re-used in the process, with the thick (paste/ slurry) to be transported to the fine tailings storage facility.
- The concentrate obtained for the washing plant is now being treated at the grease plant where the diamonds are recovered.
- The tailings are discarded and will be used for further back filling purposes.
- After backfilling of the rough material and the tailings in to the open voids the overburden and topsoil be spread evenly over the disturbed area to finalize the rehabilitation.
- Continuous inspections to the rehabilitated area will be conducted to monitor the re-vegetation rate as well as to remove all invader/pioneer plant species that may also establish themselves in the area

Commitment to provide for an addendum in respect of additional bulk sampling activities

I herewith commit to provide the Department of Mineral Resources with an addendum to the Prospecting Work Programme, and an Environmental Management programme for approval prior to undertaking any future bulk sampling activities not described above.

Mark with X

Accept	X
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6. REGULATION 7(1)(j)(i):DETAILS WITH DOCUMENTARY PROOF OF THE APPLICANT’S TECHNICAL ABILITY OR ACCESS THERETO TO CONDUCT THE PROPOSED PROSPECTING OPERATION

7.1 Competencies to be employed in terms of the Mine Health and Safety Act.

COMPETENCIES TO BE EMPLOYED (List the legal appointments that will be made in terms of the Mine Health and Safety Act, appropriate for the type of operation)	
Section 3.1 (a)	Mine Engineers
Regulation 2.13.1	Mine Engineers
Regulation 2.17.1	Mine Engineers

I herewith confirm that I, in Table 9.1 have budgeted and financially provided for the required skills listed above.

CONFIRMED (Mark with an X)	X
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7.2 List of Appropriate equipment at your disposal (If Applicable)

Table D: Appropriate Equipment Available

<i>Conditional upon non invasive studies</i>
Earth moving equipment
Processing Plant (DMS and Grease)
Rotating Pans
Crusher System

6.3 Technical skills provided Free of Charge

- 6.3.1 Information (CV's) in respect of skills already acquired (append)
- 6.3.2 Copy of the relevant contractual agreements between the service provider and the applicant relative to the duration of the planned prospecting period, where applicable.(append)
- 6.3.3 ALL other evidence of Technical Ability (append)

7. REGULATION 7(1)(j)(ii):DETAILS WITH DOCUMENTARY PROOF OF A BUDGET AND DOCUMENTARY PROOF OF THE APPLICANT'S FINANCIAL ABILITY OR ACCESS THERETO

See financial statements of applicant for the financial year 2016/2017

AND

8. REGULATION 7(1)(k) A COST ESTIMATE OF THE EXPENDITURE TO BE INCURRED FOR EACH PHASE OF THE PROPOSED PROSPECTING OPERATION (remember to also include prospecting fees)

Table 9.1

ACTIVITY	YEAR 1 Expenditure (R')	YEAR 2 Expenditure (R')	YEAR 3 Expenditure (R')	YEAR 4 Expenditure (R')	YEAR 5 Expenditure (R')
PHASE 1	13,278.00				

PHASE 2	171,930.00				
PHASE 3	9,659.00				
Phase 4(a)	199,989.00				
Phase 4(b)	17,460.00				
Phase 5	39,434.00				
PHASE 6 (a)	74,877.00				
Phase 6 (b)	215,136.00				
Phase 6(c)	183,218.00				
PHASE 7		69,151.00			
PHASE 8 (a)		126,559.00			
Phase 8 (b)		128,000.00			
Phase 8 (c)		899,475.00			
Phase 9			130,491.00		
Phase 10 (a)			557,155.00		
Phase 10 (b)			3000,000.00		
Phase 10 (c)				2000,000.00	
PHASE 11					260,981.00
PHASE 12					To be determined
PHASE 13					To be determined
Annual Total	924,981.00	1,223,185.00	3,687,646.00	2000,000.00	260,981.00
				Total budget	8,096,793.00

NOTE! If any person (including the applicant) provides services in any job or skills category at a reduced rate or free of charge, then such person's Curriculum Vitae (CV) must be attached as documentary proof of the technical ability available to the applicant.

9. FINANCIAL ABILITY TO GIVE EFFECT TO THE WORK PROGRAMME

10.1 The amount required to finance the Work Programme.

(State the amount required to complete the work)

See table 9.1

10.2 Detail regarding the financing arrangements

(Elaborate on the financing arrangements, in terms of where the finance will be sourced, extent to which the financing has been finalized and on the level of certainty that such financing can be secured.)

10.3 Confirmation of supporting evidence appended

(Attach evidence of available funding and or financing arrangements such as balance sheets, agreements with financial institutions, underwriting agreements, etc. and **specifically confirm** in this regard what documentation has been attached as appendices).

See financial statements of Jagersfontein Developments (Pty) Ltd for 2016/2017

11 Confirmation of the availability of funds to implement the proposed project.

See financial statements of Jagersfontein Developments (Pty) Ltd for 2016/2017

12 I herewith confirm that I have budgeted and financially provided for the total budget as identified in Regulation 7(1)(k).

Confirmed (Mark with an X)	X
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13 REGULATION 7(1) (m): UNDERTAKING, SIGNED BY THE APPLICANT, TO ADHERE TO THE PROPOSALS AS SET OUT IN THE PROSPECTING WORK PROGRAMME

Table: 13.1

Herewith I, the person whose name and identity number is stated below, confirm that I am the Applicant or the person authorised to act as representative of the Applicant in terms of the resolution submitted with the application, and undertake to implement this prospecting work programme and adhere to the proposals set out herein.	
Full Names and Surname	Pieter Nicolaas Meyer
Identity Number	870801 5075 0 88

END