

NAME OF APPLICANT: TRANSASIA MINERALS 999 (PTY) LTD

REFERENCE NUMBER: KZN 30/5/1/1/2/---- PR

PROSPECTING WORK PROGRAMME

SUBMITTED FOR A PROSPECTING RIGHT APPLICATION WITHOUT 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 Programme, strictly under the following headings and in the following format together with the application for a prospecting right.

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

Table 1: Applicant's Contact Details

ITEM	COMPANY CONTACT DETAILS
Name	<u>Luda Roytblat</u>
Tel no	011 883 5700
Fax no:	<u>011 881 9580</u>
Cellular no	072 962 0244
E-mail address	luda@transasia.co.za
Postal address	1 GWEN LANE, EXCHANGE SQUARE
	JSE BUILDING, SANDTON
	2146

Table 2: Consultant's Details

ITEM	CONSULTANT CONTACT DETAILS (If applicable)				
Name	N/A				
Tel no	<u>N/A</u>				
Fax no:	<u>N/A</u>				
Cellular no	<u>N/A</u>				
E-mail address	<u>N/A</u>				
Postal address					

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

SEE ATTACHED ANNEXURE 'A' TITLED REGULATION 2(2)

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

FARM NAME / NUMBER	MAGISTERIAL DISTRICT	FARM SUBDIVISION NAME/NO
Driefontein 42	Vryheid	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
Bethel 683	Vryheid	Re, 1

4. 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)	Coal				
Type of minerals continued					
Type of minerals continued					
Locality (Direction and distance from nearest town)	Vryheid				
Extent of the area required for prospecting	± 3184				
Geological formation	See Geological Map attached.				

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 only mineral to be prospected for is coal. It is envisaged that a period of 5 years will be required to complete the exploration program **Coal**

Coal differs from every other kind of rock in that it is made of organic carbon: the actual remains, not just mineralized fossils, of dead plants. Today the vast majority of dead plant matter is consumed by fire and decay, returning its carbon to the atmosphere as the gas carbon dioxide it is *oxidized*. The carbon in coal, however, was preserved from oxidation and remains in a chemically *reduced* form, available for oxidation.

Formation of coal

While coal has been reported in rocks as old as Proterozoic (possibly 2 billion years) and as young as Pliocene (2 million years old), the great majority of the world's coal was laid down during the Carboniferous Period, a 60-million-year stretch when sea level was high and forests of tall ferns and cycads grew in gigantic tropical swamps.

The key to preserving the forests' dead matter was burying it. We can tell what happened from the rocks that enclose the coal beds: there are limestones and shales on top, laid down in shallow seas, and sandstones beneath, laid down by river deltas.

Obviously the coal swamps were flooded by the sea, which advanced over them and then retreated. The fossils in the shale and limestone above the coal change from shallow-water organisms to deep-water species, then back to shallow forms. Then sandstones appear as river deltas advance into the shallow seas and another coal bed is laid down on top. This cycle of rock types is called a cyclothem. Hundreds of cyclothems occur in the rock sequence of the Carboniferous. Only one cause can do that a long series of ice ages raising and lowering the

sea level. And sure enough, in the region that was at the South Pole during that time, the rock record shows abundant evidence of glaciers.

That set of circumstances has never recurred, and the coals of the Carboniferous (and the following Permian Period) are the undisputed champions of their type.

Grades of Coal

Coal comes in three main types, or grades. First the swampy peat is squeezed and heated to form a brown, soft coal called **lignite**. In the process, the material releases hydrocarbons, which migrate away and eventually, become petroleum. With more heat and pressure lignite releases more hydrocarbons and becomes the higher-grade **bituminous coal**. Bituminous coal is black, hard and usually dull to glossy in appearance. Still greater heat and pressure yields **anthracite**, the highest grade of coal. In the process, the coal releases methane or natural gas. Anthracite, a shiny, hard black stone, is nearly pure carbon and burns with great heat and little smoke.

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.

Kwazulu Natal Geology

The oldest rocks in Kwazulu/Natal can be subdivided into two major groups. In the northern part of the province outcrops form part of the Archaean Kaapvaal Craton, which was formed more than 2 500 million years ago and hosts numerous minor gold occurrences. In the south, the oldest rocks forming the basement are about 1000 million years old and their poorly exposed outcrops cover some 10 000 km2 of Kwazulu/Natal. These rocks have been subdivided into three distinct Terranes based on geological characteristics. It is noted that there is a decrease in the abundance of mineral deposits from the Tugela Terrane in the north, to the central and southern Mzumbe and Margate Terranes.

In the Tugela Valley, the rocks of the Tugela Terrane are in tectonic contact with the Archaean rocks. Due to the rugged topography and inaccessible nature of the

remote parts of this northern Terrane, there has been systematic exploration for new deposits in this area but there is potential for finding new ore bodies. The basement is overlain by the Ordovician-Silurian aged sandstones of the Natal Group in the east, as well as by the younger Carboniferous to Jurassic sediments and volcanics of the Karoo Supergroup, which host much of the industrial mineral deposits. Surficial sediments of various ages form the most recent cover.

The first sedimentary sequence deposited on the new basement was the Cambrian to Ordovician Natal Group (490 million years ago).

Structures preserved in these sandstones indicate that the sediments were transported and deposited by rivers that drained highlands to the northeast. Close to their source, in northern KZN, deep valleys were infilled with thick accumulations of boulders and pebbles

Further south the sediment is finer grained and forms resistant sandstone cliffs. These give rise to the table top topography seen in the Valley of a Thousand Hills and Oribi Gorge near Port Shepstone

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

Field Mapping- This method includes the identification of exposed geological structures and lithological outcrops, through aerial photo interpretation, satellite image interpretation and also by walking the farms/folios.

Geophysical Survey- Ground geophysical surveys will be conducted over selected target areas on a 200m x 200m grid using a gravimeter. Ground gravity surveys are used to outline the hosting lithology.

Geochemical surveys- Geochemical surveys will be used in this region to determine the position of ore bodies. This entails the soil sampling on a line spacing of 200m.

Wire line-drilling- Drilling is done in phases, as outlined elsewhere, over anomalous target areas, using reconnaissance lines or a grid of 100m or 400m x 400m holes will be approximately >50m deep depending on the local depth. The drill holes will be sent to the laboratory for assay.

AND

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

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

Ground Gravity Method

The gravity method measures the gravitational attraction exerted by the earth at a measurement station on the surface. The strength of the gravitational field is directly proportional to the mass and therefore, the density of subsurface materials. Anomalies in the earth's gravitational field result from lateral and depth variations in the density of subsurface materials.

Gravitational acceleration is measured in MilliGals or sometimes in microGal for very high resolution surveys. Gravity acceleration variations as a result of geological changes is very small compared to the average gravity acceleration measured and require the need for very precise measuring and field techniques.

Gravity works well in environments where there is a dramatic density contrast between the host and the target mediums.

Wire-line Diamond Drilling Method

Exploration diamond drilling differs from other geological drilling in that a solid core is extracted from depth, for examination on the surface. The key technology of the diamond drill is the actual diamond bit itself. It is composed of industrial diamonds set into a soft metallic matrix. The diamonds are scattered throughout the matrix, and the action on the matrix to slowly wear during the drilling, so as to expose more diamonds. The bit is mounted onto a drill stem, which 1

is connected to a rotary drill. Water is injected into the drill pipe, so as to wash out the rock cuttings produced by the bit. An actual diamond bit is a complex affair, usually designed for a specific rock type, with many channels for washing.

Merely advancing the drill by rotary action (and washing) causes a core to be extracted inside the barrel. However, at a depth of perhaps 300m, there must be a way to retrieve the core and take it to the surface. Constantly withdrawing the entire heavy drill pipe is impractical, so methods were developed to pull up the core inside the barrel. If the rock would always be solid granite, and the core would always break at the drill bit, then it would be a simple matter to stop the drilling, and lower a simple grabbing device by a wire and pull up the core. Unfortunately, many applications require an undisturbed core in fractured rock, which calls for elaborate wire-line device.

The table below incorporates the information required in respect of Regulations 7(1)(f), 7(1)(h) and 7(1)(i):

Table 5.1

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for	What technical expert will sign
	(what are the activities that are planned to achieve optimal prospecting)	(refers to the competent personnel that will be employed to achieve the required results)	(in months) for the activity)	(What is the expected deliverable, e.g. Geological report, analytical results, feasibility study, etc.)	outcome deadline for the expected outcome to be delivered)	off on the outcome? (e.g. geologist, mining engineer, surveyor, economist, etc)
PHASE 1	Desktop study and exploration planning/mobilization	Exploration Geologist	0-3 months	Extraction of site specific geological map, information and geological report.	Month 4-6	Geologist
PHASE 2	Field Mapping	Geophysicist/Geologist	3-6 months	Interpretation of digital data into report. Correlation of geological and geophysical results.	Months 7-9	Geophysicist/Geologist
PHASE 3	Gravity survey and geochemistry	Exploration Geologist, Drilling Engineer, Site works foreman, labourers.	6-24 months	Geotechnical reporting from sidewall and soil sampling. Updating of data base, recording of borehole logs, evaluation and geological modelling. Pre-feasibility study and planning of phase 2 exploration drilling.	Month 7-24	Geologist
PHASE 4	Preliminary Drilling and assaying	Exploration Geologist, Drilling Engineer, Site works foreman, labourers	24-36 months	Updating of data base, recording of borehole logs, evaluation and geological modeling Geohydrological studies.	Month 24-36	Mineral Economist/Geologist/Mine Surveyor/Mine Engineer
PHASE 5	Further reverse circulation and diamond drilling.	Exploration Geologist, Environmental Assessment Practitioner, Mining Engineer	36 months	Environmental assessment and rehabilitation , Conceptual mine plaming Preliminary economic analyses	Month 36	Mine Engineer/EIA Specialist

6. 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)

(ii) DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

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

(iii) DESCRIPTION OF PRE-/FEASIBILITY STUDIES

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

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, <u>prior to undertaking such activities</u>. 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	

- 7. 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)

Victor Simposya (Geologist)

CJS Exploration Drilling (Drilling Contractor)

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

7.2 List of Appropriate equipment at your disposal (If Applicable)

Table D: Appropriate Equipment Available

Gravimeter
Laptop Computers
Diamond Core Drill Rig(1200-1800) [Reverse circulation drill capability]
4X4 off road vehicle
Water bowser (Truck)

8 ton Equipment Carrier Truck	

7.3 Technical skills provided Free of Charge

7.3.1 Information (CV's) in respect of skills already acquired (append)

SEE ATTACHED CV OF OUR RESIDENT GEOLOGIST VICTOR SIMPOSYA AS TECHNICAL ABILITY

7.3.2 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)

SEE ATTACHED COPY OF THE CONTRACT WHICH IS ATTACHED ON OUR TECHNICAL COMPENCY

7.3.3 ALL other evidence of Technical Ability (append)

SEE ATTACHED TECHNICAL COMPENCY

8. 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 ATTACHED DOCUMENTARY PROOF AS FINANCIAL ABILITY

AND

9. 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

Item	Description	Units	Quantity	Price	Cost
	Prospecting fees	Hectares	3142	over 3yrs	R 18,660
	Desktop Study and Geological	Hours	100	R500	R 50,000
	Reconnaissance				
	Magnetic Surveys	Hectares	3142	R40	R 186,800
	Diamond Drilling(4 boreholes)	Meters	3600	R200	R 720,000
	Wire Logging	Meters	3600	R20	R 72,000
	Core Analysis	2/borehole	12	R500	R 6,000
	Modeling and Consultation(incl MHS)	Hours	100	R500	R 50,000
	Total				R1 101,460

ltem	Description	Units	Quantity	Price	Cost
	Percussion Drilling (4 holes)	Meters	3600	R200	R 720,000
	Core logging	Each	3600	R20	R 72,000
	Core analysis	Each	12	R500	R 6,000
	Other cost(include labour costs)				R 50,000
	Modeling and Consultation(incl MHS)	Hours	100	R500	R 50,000
	Total				R 898,000

Item	Description	Units	Quantity	ity Price Cost			
	EIA and Feasibilit	y Studies			R 500,000		
	Total				R 500,000		

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.

10. FINANCIAL ABILITY TO GIVE EFFECT TO THE WORK PROGRAMME

10.1 The amount required to finance the Work Programme.

R 2,497,460.00 is required to complete the prospecting work over three years.

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.)

Appendixes Letter from the funder attached

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 attached Technical Ability

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

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)	Х

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.

Lyudmula Roytblat

E3065611

Identity Number

END

COMMODITY: COAL **Legend** TRANSASIA MINER. LS 999 (Pty) Ltd (DMR REF: KZN 35/1/1/12/102/7 PR The Polygon below: represent a prospecting right area with the extent of appromiximately 4284.22 hectares situated in KZN

FARMING PORTION NO 42 1 to 14 501 4,10 683 1,R 767 R FARMNAME DRIEFONTEIN MOONTLK UITZIGT BETHEL

HECTARES: 4284.22

27.94318°S; 31.04798°E 27.94438°S; 31.04765°E 27.95535°S; 31.07755°E 27.95549°S; 31.07795°E 27.95763°S; 31.07682°E 27.97741°S; 31.07963°E 27.98969°S; 31.07587°E 27.99151°S; 31.04913°E 28.01286°S; 31.04036°E 28.00956°S; 31.02035°E 27.97359°S; 31.00191°E 27.92804°S; 31.0076°E 28.0131°S; 31.02751°E 27.99469°S; 31.0123°E 27,9804°S; 30,9996°E Provincial Boundaries Prospecting Area · National Roads Settlement

27.98792°S; 31.02264°E 27,98523°S; 31.02827°E 28.00426°S; 31.02239°E 27.96776°S; 31.01861°E 27,96063°S; 31,00428°E 27.97584°S; 31.01342°E 27,92804°S; 31,0076°E 27.9293°S; 31.0072°E

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