ADDRESS : P O BOX 730 FAUNA PARK 0787

TEL. NO. : 082 873 5309

DECLARATION

BY AN LANDOWNER / INTERESTED / AFFECTED PARTY PERTAINING PROSPECTING BY : TASMAN PACIFIC MINERALS LIMITED.

Ι. the undersigned, JAKOBUS JOHANNES SIEBERHAGEN ID. No 2701015014005

Hereby declare that I have been informed of the prospecting project on the farm : OSKOM 116 REMAINDER , in the District of Cradock and that the possible inconvenience which may result from such prospecting activities, has been fully explained to me in the above prospecting methodology.

I further declare that I fully understand the impact of the said prospecting project on the environment and that I have no objection to rise against the above proposal provided. :

A: SEVEN () DAYS NOTICE BEFORE ENTERING THE FARM

- B. :_____
- C. :_____

I sign this declaration in my capacity as : OLUNER

(AFFECTED PARTY

-10/10/2005 DATE.



28 October 2005

MR. R. KUNHARDT 10 PLYMOUTH DRIVE MAHOON 5241

Registered Mail.

Dear Sir

APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF THE FARM OSKOM 116 / 1. DISTRICT OF CRADOCK.

It is confirmed herewith that an application to prospect for uranium and molybdenum ore on the abovementioned property has been accepted by the Department of Minerals and Energy, Private Bag X6076, Port Elizabeth 6000. (Ref. No. EC30/5/1/1/2(28) PR.

The registered surface owner or occupier of the farm is being regarded as an affected party for the of Regulation 52 (2) (g) and Section 10 (1) (b) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

The proposed prospecting activity consist of, inter alia, geological and stratigraphic mapping, geochemical surveys and geophysical surveys, rock chip and channel sampling (by hand) as well as diamond and purcussion drilling. An extract from the relevant prospecting work programme is attached hereto for your information and records.

It is confirmed herewith that acceptable arrangements will be made with yourself with regard to access to the farm in question.

Yours faithfully

C.J. H. van ROOYEN.

Tel (015) 295-7997 (082 873 5309

E- Mail : dkgoodall@msn.com.au



Tel: (015) 295 7997 (082 873 5309) E-Mail: dkgoodall@msn.com.au

P O Box 730 Fauna Park-0787

10.10.2005

 $\frac{\text{REGISTERED}}{\text{Irvin Peter Tam}}$ $P \cdot O \cdot Bo \times 25^{\circ}$ $C \cdot RHDOC \cdot K$ $5^{\circ} S \cdot S'O$

Sir

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APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF FARM 120 (R/E) AND FARM 590 (R/E) DISTRICT OF CRADOCK

It is confirmed herewith that an application to prospect for uranium and molybdenum ore on the abovementioned property has been accepted by the Department of Minerals and Energy, Private Bag X6076, Port Elizabeth 6000. (Ref No EC30/5/1/1/2/(28) PR).

The registered surface owner is being regarded as an affected party for the purpose of Regulation 52 (2) (g) and Section 10 (1) (b) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and I shall be glad to receive such comments you may wish to offer with regard to the said application before 28 October 2005.

The proposed prospecting activity consists of, inter alia, geological and stratigraphic mapping, geochemical surveys and geophysical surveys, rock chip and channel sampling (by hand) as well as diamond and percussion drilling.

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Tel: (015) 295 7997 (082 873 5309) E-Mail: dkgoodall@msn.com.au

P O Box 730 Fauna Park • 0787

10.10.2005

REGISTERED Eleanor Mary White 10 Plymouth Drive NAHOON 5241

Madam

APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF OSKOM 116/1 DISTRICT OF CRADOCK

It is confirmed herewith that an application to prospect for uranium and molybdenum ore on the abovementioned property has been accepted by the Department of Minerals and Energy, Private Bag X6076, Port Elizabeth 6000. (Ref No EC30/5/1/1/2/(28) PR).

The registered surface owner is being regarded as an affected party for the purpose of Regulation 52 (2) (g) and Section 10 (1) (b) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and I shall be glad to receive such comments you may wish to offer with regard to the said application before 28 October 2005.

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Our Ref: Mr C Abdo/sh/W17

Your Ref:

Date: 24 October 2005

TASMAN PACIFIC MINERALS LIMITED

PER E-MAIL: dkgoodall@msn.com.au

Abdo &Abdo

ATTORNEYS

33 Tecoma Street, Berea, East London 5241 P.O. Box 19503, Tecoma, 5214 Docex 9, East London

Telephone 043 721 0461 Fax 043 721 0472 E-mail: gen@abdomen.co.za

CHRISTOPHER JOHN ABDO DEREK ANTHONY BARTER GRANT ANDREW BERNDT B.Comm LL.B

Assisted by NWABISA HEXANA B.Proc LWAZI DEKEDA LL B Associate ATHOL AUGUSTINE ABDO

Dear Sir / Madam,

RE: APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF OSKOM 116/1 DISTRICT OF CRADOCK OUR CLIENT: E M WHITE

Our abovenamed client has handed to us for attention a letter addressed by you to her which is dated the 10th October 2005.

There is insufficient information contained in your letter to enable our client to make a decision and we should be pleased if you would let us have more details as to exactly what prospecting is proposed. In order to inhibit stock-theft and poaching, the gates to the property are kept locked and prior arrangements will need to be made regarding access.

Please also advise whether any environmental management programme or plan has been prepared.

The occupier of the farm, Mr R Kunhardt, would also need to be consulted. His contact telephone number is 083 391 1095.

Yours faithfully

ABDO & ABDO



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10 PLYMOUTH DRIVE MAHOON 5241

Registered Mail.

Dear Sir

APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF THE FARM OSKOM 116 / 1. DISTRICT OF CRADOCK.

It is confirmed herewith that an application to prospect for uranium and molybdenum ore on the abovementioned property has been accepted by the Department of Minerals and Energy, Private Bag X6076, Port Elizabeth 6000. (Ref. No. EC30/5/1/1/2(28) PR.

The registered surface owner or occupier of the farm is being regarded as an affected party for the of Regulation 52 (2) (g) and Section 10 (1) (b) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

The proposed prospecting activity consist of, inter alia, geological and stratigraphic mapping, geochemical surveys and geophysical surveys, rock chip and channel sampling (by hand) as well as diamond and purcussion. An extract from the relevant prospecting work programme is attached here for your information and records.

It is confirmed herewith that acceptable arrangements will be made with yourself with regard to access to the farm in question.

Yours faithfully

C.J. H. van ROOYEN.

Tel. (015) 295-7997 (082 873 5309

E- Mail : dkgoodall@msn.com.au



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MESSRS ABOU & ADDU ALIUKINE P.O. BOOX 19503 TELOMA 5214

Registered Mail.

Gentleman

APPLICATION DOR A PROSPECTING RIGHT IN RESPECT OF THE FARM OSKOM 116/1. DISTRICT OF CRADOCK. YOUR REF IS C. ABDO/SH/W17.

I refer to your letter dated 24 October 2005 and forward herewith a copy of the proposed prospecting work programme, applicable to the above application, as requested.

Compiling of the requisite environmental management plan is currently in process and same will be submitted to the Regional Manager, Dept of Minerals and Energy, Port Elizabeth, before 18 November 2005. (See copy of letter of acceptance dated 19 September 2005).

It is confirmed herewith that the occupier of the property in question, Mr R. Kunhardt, will also be consulted with regard to the proposed prospecting project as well as access to the property in question.

Yours faithfully

C. J. H. van ROOYEN

Tel: (015) 295-7997 Cell: 082 873 5309 E-mail: dkgoodall@msn.com.au



Tel: (015) 295 7997 (082 873 5309) E-Mail: dkgoodall@msn.com.au

P O Box 730 Fauna Park - 0787

10.10.2005

REGISTERED The National Nuclear Regulator P O Box 7106 Centurion 0046

Sir

APPLICATION FOR A PROSPECTING RIGHT IN RESPECT OF VARIOUS FARMS DISTRICT OF CRADOCK

It is confirmed herewith that an application to prospect for uranium and molybdenum ore on the properties as shown on the attached list and sketch plan has been accepted by the Department of Minerals and Energy, Private Bag X6076, Port Elizabeth 6000. (Ref No EC30/5/1/1/2/(28) PR).

Your Corporation is an affected party for the purpose of Regulation 52 (2) (g) and Section 10 (1) (b) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and I shall be glad to receive such comments you may wish to offer with regard to the said application before 28 October 2005.

The proposed prospecting activity consists of, inter alia, geological and stratigraphic mapping, geochemical surveys and geophysical surveys, rock chip and channel sampling (by hand) as well as diamond and percussion drilling.

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PROSPECTING WORK PROGRAMME IN SUPPORT OF APPLICATION FOR PROSPECTING RIGHT BY

TASMAN PACIFIC MINERALS LIMITED

OVER AN AREA NAMED SITE 37, CONSISTING OF 20 WHOLE FARMS IN THE

REGISTRATION DIVISION OF EASTERN CAPE PROVINCE

September 2005



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STRUCTURE OF THIS REPORT

This report has been prepared in accordance with Regulation 7(1), read with the standard format "A Guideline for a Prospecting Work Programme to be submitted for Applications for a Prospecting Right in terms of Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) {Regulation 7(1) of the Regulations}" prepared by the DME.

Regulation 7(1) of the MPRD Regulations (in terms of Gazette No. 26275 dated 23 April 2004) requires that the Prospecting Work Programme contain the following information:

- (a) The full particulars of the applicant;
- (b) The plan contemplated in regulation 2(2), showing the land to which the application relates;
- (c) The registered description of the land to which the application relates specifying the farm name and subdivision;
- (d) The mineral or minerals to be prospected for;
- (e) A geological description of the land substantiated by a geological map;
- (f) A description of how the mineral resource and mineral distribution of the prospecting area will be determined through -
 - (i) the prospecting work to be performed;
 - (ii) a geochemical survey to be carried out; and
 - (iii) a geophysical survey to be undertaken;
- (g) A description of the prospecting method or methods to be implemented that may include:
 - (i) any excavations, trenching, pitting and drilling to be carried out;
 - (ii) any bulk sampling and testing to be carried out; and
 - (iii) any other prospecting methods to be applied.
- (h) All planned prospecting activities must be conducted in phases and within specific timeframes.
- (i) technical data detailing the prospecting method or methods to be implemented and the time required for each phase of the proposed prospecting operation;
- (j) details with documentary proof of -
 - (i) the applicant's technical ability or access thereto to conduct the proposed prospecting operation; and

Prospecting Work Programme, TasPac Site 37

- (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.
- (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 --
 - (i) direct prospecting costs;
 - (ii) labour costs;
 - (iii) costs pertaining to the rehabilitation and management of environmental impacts; and
 - (iv) any other direct cost
- (m) an undertaking, signed by the applicant, to adhere to the proposals as set out in the prospecting work programme.

Introduction and Scope of Application:

This Prospecting Work Programme has been compiled as part of the application for a Prospecting Right in terms of Section 16 of the Mineral & Petroleum Resources Development Act.

Motivation for the project:

This prospecting application is prompted by the fact that Tasman Pacific Minerals Limited (TasPac) wishes to investigate the potential for economic uranium and molybdenum deposits in the eastern part of the Karoo uranium province, on the farms subject to this application. It is believed that the last prospecting undertaken for uranium and molybdenum in this area of the Karoo was sampling in the Barberskrans Member by the Council for Geoscience over 20 years ago. The recent rise in price of both uranium and molybdenum give potential for the sandstone-hosted type deposits to be of economic benefit.

TasPac has proposed a staged prospecting programme which will allow time to conduct a thorough search for any previous exploration data which may exist, whilst simultaneously conducting regional geological mapping on these farms to enable selection of areas for more detailed geological mapping, radiometric traverses and rock chip sampling. If anomalous sample results in the desired type of sandstone host rock are located, it is envisaged that scout percussion drilling will take place. If this scout drilling successfully locates economic grades of uranium/molybdenum mineralisation detailed grid-pattern drilling will commence to delineate a resource.

If the above work is successful towards the end of the five year period, it is envisaged that an extension of the Prospecting Right would be sought to enable feasibility and mine planning work (both economic and environmental) to be conducted prior to an application for a Mining Right.

PART A: The full particulars of the applicant

Applicant Name:	Tasman Pacific Minerals Limited	
Registration Number:	Australian Company Number 112 181 665	
Trading as:	Not applicable	
Surname of Contact Person:	Goodall	
Forenames of Contact Person:	Douglas Keith	
Branch/Division:	Not applicable	
Postal Address;	c/- Mmakau Mining (Pty) Ltd P O Box 2236, Houghton, Johannesburg, 2041	
Telephone Number:	011 880 0206	
Fax Number:	011 880 0207	
Cell Number:	South Africa: 076 373 6524 Australia: +61 412 399 462	
Email Address:	dkgoodall@msn.com.au	
Physical Address:	c/- Mmakau Mining (Pty) Ltd 34, Eighth Street, Houghton, Johannesburg, 2041	

The applicant has no current prospecting or mining rights.

Attached (refer Annexure A) please find:

Copy of Certificate of Registration (for an Australian company) Copy of letter from Company auditor in place of Certificate to Commence Business (foreign company)

Copy of resolution allowing signatory to act on company behalf

PART B: Plan required in terms of regulation 2(2)

Refer attached Figure 1. The plan shows the following, in accordance with Regulation 2(2):

Requirement	
Co-ordinates and spheroid	Y
North Point	Y
Scale	Y
Location and name & number of the land	Y
Extent of the land to which the application relates	Y
Boundaries to which the application relates	Y
Surface structures and registered servitudes	Y
Topography of the land (by means of contours)	Y
Locality plan at appropriate scale	Y
Plan is signed and dated by applicant	Y

PART C: Description of the land unit

Prospecting is proposed to take place on 20 whole farms as follows (Refer Figure 1 - certified copies of Title Deeds enclosed.) Please note that there are only 11 landowners of these 20 farms.

Farm Name & Number	Farm Owner	Extent (ha)	Title Deed
River Glen 221 Remainder	L Breytenbach	1227.9871	T33178/2003
De Geerskraal Uitspanning 222 Rem	A T van Heerden	414.8566	T35464/1987
Denmark 118 Remainder	A T van Heerden	1194.8878	T16479/1982
Denmark 119 Remainder	A T van Heerden	1899.7887	T16479/1982
Denmark 119/1	A T van Heerden	810.2750	T16479/1982
Geers Kraal Outspan 223 Rem.	M C W van Heerden	104.7039	T33751/1986
Groene Vallei 226 Remainder	M C W van Heerden	1743.8906	T33751/1986
Farm 585 Remainder	D C Holmes	5800.8995	T50145/1994
Farm 73 Remainder	A S Jordaan	2255.1474	T8946/1994
River Glen 221/1	J Z du Plessis	600.7130	T20218/1968
Groene Vallei 226/1	W H J van Rensburg	1493.6248	T66559/1989
Groene Vallei 226/2	Johanna J Sieberhagen	274.0688	T31394/1973
Farm 117/1	Johanna J Sieberhagen	239.8504	T31394/1973
Roode Heuvel 74/2	Jakobus J Sieberhagen	20.8167	T32287/1975
Doornfontein 113/4	Jakobus J Sieberhagen	438.4588	T10708/1975
Farm 115 Remainder	Jakobus J Sieberhagen	257.2194	T10708/1975
Oskom 116 Remainder	Jakobus J Sieberhagen	795.9511	T10708/1975
Farm 120 Remainder	I P Tam	139.8688	T18306/1995
Farm 590 Remainder	I P Tam	1378.6848	T51468/2000
Oskom 116/1	E M White	795.9511	T118551/1997
		21 887.6443	

All properties are located in the Cradock Registration Division, the Cradock Magisterial District, Inxuba Yethambamo Local Municipal area and the Chris Hani District Municipality.

PART D: The minerals to be prospected

The prospecting right is required for the following minerals:

Code	Mineral/Commodity	Type Code	Type Description
U	Uranium Ore	B	Ferrous & base metals
Mo	Molybdenum Ore	В	Ferrous & base metals

Prospecting period:

The prospecting right is required for a period of 5 years.

Prospecting Work Programme, TasPac Site 37

PART E: Geology

E.1: List known mineral/rock/commodity deposits of economic interest in the vicinity within the context of regional geology.

The purpose of the prospecting is to establish the presence of economic deposits of sandstone-hosted uranium/molybdenum mineralisation on the farms which are the subject of this application. If a mineable reserve can be proven on the properties, the applicant will apply, in conjunction with the BEE partner, for a Mining Right.

Refer Figure 2, which shows the geology of the area and locations where uranium mineralisation was sampled by the Council for Geoscience over 20 years ago.

E.2: Description of Geology

Regional Geology and Previous Exploration of the Karoo Uranium Province

The Karoo Uranium Province extends 700km south to north, from the north east of the Western Cape to the south west of the Free State, and 200km west to east, from the south east of the Northern Cape to the west of the Eastern Cape.

Previous Exploration

Exploration for uranium during the 1970's and early 1980's was based on an exploration strategy that selected target sedimentary basins showing geological similarities to the Colorado Plateau Uranium Province in the United States. Airborne radiometric surveys were undertaken and a number of uranium deposits were discovered that justified feasibility studies at that time. However, the uranium was never exploited because the rapid decline in the uranium price in the early 1980's rendered the Karoo deposits sub-economic and by 1985 exploration had ceased. There had been no known prospecting for uranium in the Karoo since that time until the price of uranium recovered in 2004.

The uranium (and associated molybdenum) mineralisation is sandstone hosted, disseminated and occurs in tabular bodies within the flat-lying sandstone bodies. The mineralised bodies are normally 1m to 2m thick (but up to 7m in places). They range up to several hundreds of metres in length and 200m in width and are generally elongated along the paleochannel thalweg, within the lower portion of the enclosing fluvial sandstone body. The largest deposit discovered in the 1970's – 1980's was Ryst Kuil, which contained 7 000 tonnes of uranium, but most deposits contained less than 1 000 tonnes of uranium.

Between 1977 and 1982, the Geological Survey conducted an airborne survey of the main Karoo basin, which lead to the discovery of about 150 uranium

occurrences in the Adelaide Subgroup. This was in addition to the few thousand occurrences that had already been located by exploration companies.

Metallurgical studies (Ford, M.A., Smits, G. and McCulloch, H.W., 1982. The recovery of uranium with molybdenum as a byproduct from deposits in the Karoo: Proceedings, 12th CMMI Congress (H. W. Glen, ed.): Geological Society of South Africa, Johannesburg, p. 583-593.) showed that both uranium and molybdenum could be recovered by using either an acid or alkaline leach (acid leach gave recoveries of 88% for uranium and 55% for molybdenum and alkaline leach gave recoveries of 86% for uranium and 85% for molybdenum).

Molybdenum Potential

During the uranium exploration boom over 20 years ago molybdenum was somewhat neglected. Whilst the exploration companies did conduct some assaying for molybdenum it was not routine and many boreholes, even during the feasibility stage, were not assayed for molybdenum. The current high price of molybdenum makes the sandstone hosted mineralised deposits very attractive in terms of combined uranium and molybdenum grades.

The Council for Geoscience (formerly the Geological Survey) has conducted extensive work on the molybdenum potential; Memoir 80, Cole, D. I. and Wipplinger, P. E., 2001, "Sedimentology and Molybdenum Potential of the Beaufort Group in the Main Karoo Basin, South Africa". That work, along with the chapters on uranium (Cole, D. I., Council for Geoscience) and molybdenum (Wilson, M. G. C. and Cole, D.I., Council for Geoscience) in "The Mineral Deposits of South Africa", is drawn on heavily in the summary of geology in this report.

The Council for Geoscience investigated about 600 uranium occurrences, using unpublished assay data from private mining companies and institutions, as well as their own limited data, to determine the distribution of molybdenum in the Adelaide Subgroup. A reconnaissance field study of 36 occurrences consisted of ground-radiometric surveys of sandstone outcrops and collection of 6-10 samples (as fresh as possible) of approximately 2kg each at each site. One or two non-radiometric samples were also collected from each site. Stream sediment analyses from a Geological Survey sampling project started in the Karoo in 1976 (approximately 1 sample/sq km) was also evaluated but found not to be particularly useful.

A total of 50 regional target areas were then selected for detailed follow up studies.

Summary of Mineralisation Style

Two types of mineralisation are now recognised, a laminated-sandstone type and a carbonate-cemented type, and both types contain similar concentrations of uranium (approximately 1 400 ppm):

- 1. Laminated-sandstone type (non-calcareous)
 - Typically uranium is +/- 1 400 ppm
 - Contains the bulk of the molybdenum (+/- 1 000 ppm)
 - Occurs in the basal few metres of the horizontally bedded sandstone body, below the palaeo-watertable, where reducing conditions were most intense.
- 2. Carbonate-cemented sandstone type
 - Typically uranium is +/- 1 400 ppm
 - Contains lower grade molybdenum (+/- 500ppm)
 - Also present in the basal position, but does occur in the middle of the sandstone bodies where milder reducing conditions resulted in the deposition of even lower grades of molybdenum (+/- 100ppm).

Metallogenesis

The Late Permian to Early Triassic Beaufort Group sediments were deposited on a vast alluvial plain with the more abundant mudrock representing flood-basin and lacustrine deposits, and the sandstone bodies, which are commonly multistorey, multilateral and composite, representing fluvial channel deposits of both meandering and braided-river systems. The sedimentation was deposited by perennial meandering rivers which were interrupted by catastrophic floods in places.

Metallogenesis is believed to have occurred shortly after deposition of the hosting fluvial sandstone bodies and is thought to have been dependent on three factors: 1) uranium/molybdenum source; 2) palaeoclimate; and 3) availability of a reductant.

1. The confinement of uranium to the Adelaide Subgroup in the central and southwestern part of the Karoo basin and its absence from the overlying Tarkastad Subgroup, which has a similar lithology, palaeoenvironment and palaeoclimate, suggests a provenance control on the metals. Molybdenum is confined to areas of the southwestern Karoo, whereas uranium is more widespread. The molybdenum distribution is apparently provenance-controlled with it believed to have been derived from granitic sources in western Namaqualand and its adjacent offshore regions, as well as the offshore regions of the Western Cape. The presence of uranium in all of the sandstone packages of the Beaufort Group of the southwestern Karoo suggests that volcanic ash derived from a magmatic arc to the south of the Cape

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Fold Belt provenance area may have supplied uranium continuously to the southern part of the Karoo basin, supplementing the basement granite source rocks.

- 2. The position of the palaeowater-table was important, since it preserved organic matter as a potential metal reductant by water-logging the sandstone body and, once metal precipitation had occurred, it prevented dissolution and flushing out of the metals by oxygenated water. Water-tables were relatively low in the semi-arid, warm, terrestrial palaeoclimate of the Beaufort Group and ore bodies are only preserved in the thickest, multistorey sandstone bodies.
- 3. Carbonaceous organic matter is believed to have provided an absorbent as well as a reductant for both molybdenum and uranium. The confinement of the best grade molybdenum to the laminatedsandstone-type ore in the lowest portions of the sandstone is a result of the reducing conditions being optimal there. Uranium requires less reducing conditions for its precipitation than molybdenum and is thus more widespread, occurring in carbonate-cemented sandstone-type ore up to 18 m above the sandstone base.

Favourable Stratigraphy

Cole and Wipplinger identify favourable members for hosting molybdenum and/or uranium deposits (only one known occurrence contains molybdenum without uranium, but numerous uraniferous deposits in the Karoo Supergroup lack molybdenum). The Poortjie Member is regarded as the best molybdenum target, with the Barberskrans and Moordenaars Members identified as having the second and third greatest potential, however, the thick, multistorey, mineralised sandstone bodies in the Moordenaars Member are similar to those in the Poortjie Member and the limited resources so far discovered may indicate a lack of exploration activity rather than a lack of mineralisation. Similarly, very little work has been undertaken on the Barberskrans Member.

Structure

The strata commonly have dips of less than 5 degrees. Faults are uncommon in the Beaufort Group, whereas joints are common and are generally oriented north-south.

Dolerite Intrusions

Dolerite dykes and sills intrude the Karoo Supergroup in the main Karoo basin. The horizontally concordant sills range from a few metres to approximately 300m in thickness and the dykes extend for up to 200km and occupy tensional fissures.



Palaeocurrent Studies

Cole and Wipplinger utilised approximately 38 000 palaeocurrent readings (2 700 from their own studies) to investigate the fluvial transport system of the Beaufort Group. They used that data to subdivide the Beaufort Group of the southwestern part of the Karoo basin into three fluvial transport systems, which have three different provenance areas. The sandstone packages (Members) derived from the same or different provenances generally overlap and/or interfinger.

The **north-easterly** fluvial transport system was responsible for the deposition of at least seven sandstone packages, all associated with the Adelaide Subgroup. The texture of the sandstone within the packages is consistent and is normally very fine grained, but can be fine to medium grained in the more proximal areas. The texture is similar to that of the deltaic and shallow marine shelf sandstone packages at the top of the underlying Ecca Group.

Plane lamination, trough cross-bedding, planar cross-bedding and ripple crosslamination are the predominant sedimentary structures. Upward fining sequences are common with the top of the sandstone bodies grading into siltstone and mudstone. Calcareous nodules, termed "koffieklip", may occur within the sandstone. A few of the siltstone beds contain ripple marks and desiccation cracks and the mudstone is commonly bioturbated and in places, burrowed.

The palaeocurrent results of the **east-southeasterly** fluvial transport system show that only two sandstone packages can be ascribed to this system. They occur in the basal part of the Beaufort Group and overlie the shallow-marine shelf sediments of the Waterford Formation, Ecca Group, which has a common provenance with the fluvial packages. The lower most fluvial sandstone package consists of many thin sandstones interbedded with mudrock and grades distally towards the east-northeast into mudrock and sandstone of shallow marine-shelf palaeoenvironment.

The upper sandstone package of this fluvial system is more extensive but also grades distally into shallow marine-shelf sediments. This package, named the Davidskolk Member of the Adelaide Group, can be up to 116 metres thick with individual sandstone units up to 15 m thick. In outcrop these sandstone bodies are both tabular and ribbon shaped. No other packages were deposited by the east-southeasterly fluvial transport system and the overlying packages, of the Moordenaars and Loxton Members, were deposited by the northeasterly fluvial system. There appears to be an overlap of the two systems at the time interval when the Davidskolk sediments were deposited.

The **north-northwesterly** transport system is the most extensive in the Beaufort Group and covers the central and southeastern part of the Karoo basin. Five sandstone packages or laterally persistent zones were recognised. Both tabular



and ribbon shaped sandstone bodies are present and the package occurs approximately 150m to 200m above of the base of the Beaufort Group.

E.3: Show proposed prospecting activities on this map

Refer Figure 2 and Part F & G for full description. Geological and stratigraphic mapping, geochemical surveys and geophysical surveys will be conducted on the whole area under application but the sites for drilling cannot be determined at this stage. It is assumed that at least three areas will be identified for scout drilling and at least one of those areas will require detailed drilling.

Prospecting will consist of 7 phases.

- The first phase will consist of non-invasive prospecting methods involving data acquisition from government and private sources, including aerial photos and Landsat images, geological interpretation and planning. Prospecting data from previous explorers will be sought, but it is suspected that no previous work was conducted in the area.
- 2. Phase 2 is non-invasive regional geological and stratigraphic mapping and geophysical and geochemical traverses (all on foot).
- 3. Phase 3 is a non-invasive detailed investigation of promising areas located during the regional Phase 2 work, using the same methods as in Phase 2.
- 4. Phase 4 consists of two sub-phases. Phase 4(a) consists of lodging an amendment to the PWP and EMP once results of the previous geological, geochemical and geophysical surveys have indicated optimum locations for scout drill holes. Phase 4(b) consists of scout reverse circulation percussion drilling to trace mineralised sandstone units discovered during Phases 1 to 3.
- 5. Phase 5 consists of two sub-phases. Phase 5(a) consists of lodging an amendment to the PWP and EMP if the results of the scout drilling in Phase 4(b) above are promising and detailed drilling is required. Phase 5(b) consists of detailed reverse circulation percussion drilling to delineate the mineralisation discovered in the scout drilling and some diamond drill holes to "twin" some of the reverse circulation boreholes.
- 6. Phase 6 will be a pre-feasibility study to determine if the mineralisation delineated in the detailed drilling may be economic.
- 7. Phase 7 is an administrative, decision-making and rehabilitation phase during which the final progress report will be compiled to DME requirements and a decision will be made as to future applications (i.e. to proceed with a Mining Right application or not) and the final rehabilitation of the site will take place.



PART F: Non-invasive prospecting activities

Introduction:

The complete prospecting will consist of the following phases and activities with the non-invasive activities shown in bold:

Phase 1: Data collection, geological interpretation and planning.

Phase 2: Regional geological mapping, geophysical traverses and some geochemical rock chip sampling (all on foot).

Phase 3: Detailed geological mapping, geophysical traverses and geochemical rock chip and channel sampling (by hand).

Phase 4: Consists of Phase 4(a), amendment to PWP and EMP, and Phase 4(b) of scout reverse circulation percussion drilling, including non-invasive logging and analysis of the borehole cuttings and interpretation of the results.

Phase 5: Consists of **Phase 5(a)**, amendment to **PWP** and **EMP**, and Phase 5(b) detailed reverse circulation percussion drilling, with some diamond drill holes as "quality control", including non-invasive logging and analysis of the borehole cuttings and drill core and interpretation of the results.

Phase 6: Will be a pre-feasibility study to determine if the mineralisation delineated in the detailed drilling may be economic.

Phase 7: Data Analysis, Decision Making & Reporting

The *non-invasive prospecting* will consist of the following methods in phases as described below:

Phase 1: Data collection, geological interpretation and planning.

This phase will consist of data acquisition from government and private sources, including aerial photos and Landsat images, geological interpretation and planning. It should not be necessary to peg a grid with markers at an early stage. Traversing on foot can be controlled by GPS measurements, avoiding the need to mark the grid with labelled droppers (pegs). Borehole positions for scout drilling in Phase 4(b) can be located by GPS measurement and holes can later be surveyed if the analyses warrant it.

Phase 2: Regional geological mapping, geophysical traverses and some geochemical rock chip sampling.

Regional geological and stratigraphic mapping and geophysical and geochemical traverses will be conducted on foot. Although it is suspected that no previous



work was undertaken by exploration companies in this area, the prospecting work in the Karoo in the 1970's and early 1980's was apparently based on airborne radiometric surveys, i.e. the focus was, naturally, on the radioactivity of the uranium in the sandstones.

The applicant's focus will be on both uranium and molybdenum and careful geological investigation of the sandstone bodies prior to drilling is expected to give superior results. As the orebodies are only preserved in the thickest, multistorey sandstone bodies and the best grade molybdenum occurs in the lowest portions of the laminated-sandstone type deposits, the geological and stratigraphic mapping will attempt to identify the stratigraphic position of any anomalous sandstone body through studying the sedimentary features of the units.

The regional geological mapping will also pay particular attention to the palaeofluvial transport systems to gain an understanding of the likely direction of the long axis of any mineralisation discovered in outcrop in cliffs, gullys and breakaways. The geophysical work will consist of ground radiometric investigation of suitable sandstone host rocks for mineralisation as well as magnetometric traversing of the prospecting area to determine the presence of dolerite sills and/or dykes, if they are suspected to be a problem from the geological mapping.

Experimentation of "alpha cup" radiometric geophysics may be undertaken. This involves placing a series of sensors in small holes, similar to geochemical soil sample holes, measuring approximately 15cm diameter and 10cm depth, and leaving the sensors in the ground for a week to measure the quantity of radon gas leaking from the rocks.

Phase 3: Detailed geological mapping, geophysical traverses and geochemical rock chip and channel sampling (by hand).

Detailed investigation of promising areas located during the regional Phase 2 work will consist of geological mapping, geophysical traverses (radiometric and magnetometric), rock chip geochemical sampling and channel sampling with geological hammer to take no more than a 2 kg rock sample. Detailed alpha cup geophysical surveys may be undertaken if the trial survey mentioned above was successful. Detailed work, as described above, will also be conducted at the areas previously sampled by the Council for Geoscience and found to be anomalous in uranium and molybdenum.

Phase 4(a): Lodging an amendment to the PWP and EMP once the results of the previous geological, geochemical and geophysical surveys have indicated the optimum locations for scout boreholes.

Phase 4(b): Consists of scout reverse circulation percussion drilling as described in part G (invasive). Non-invasive geological and geophysical logging of the



borehole cuttings and sample analysis, as well as interpretation of the results, will also be part of Phase 4(b). A down-hole scintillometer will be tested for calibration purposes to establish the validity of that method of analysis for uranium against spectrometer uranium values.

Phase 5(a): Lodging an amendment to the PWP and EMP if the results of the scout drilling in Phase 4(b) above are promising and detailed reverse circulation drilling is required.

Phase 5(b): Consists of detailed reverse circulation percussion drilling as described in Part G (invasive). It will include some diamond drill holes to "twin" some of the reverse circulation percussion boreholes to obtain drill core to confirm geological and metallurgical conclusions drawn from previous results. Non-invasive geological and geophysical logging of the borehole cuttings and drill core and sample analysis, as well as interpretation of the results, will also be part of Phase 5(b). A down hole-scintillometer will be used for analysis of mineralised horizons if the trial survey in Phase 4(b) was successful.

Phase 6: Will be a pre-feasibility study to determine if the mineralisation delineated in the detailed drilling may be economic.

Phase 6 will consist of an analysis of all the information received from the invasive & non-invasive prospecting techniques. This will entail computer generation of models to simulate the deposit and from that information the economic studies required to determine the feasibility of the project will be carried out and the pre-feasibility studies finalised.

Phase 7: Data analysis, Decision Making & Report Preparation

An informed decision will be made as to the future of the site from the following options:

- The cessation of all activities on site with the final rehabilitation of all remaining impacts should prospecting yield negative results and no future actions be contemplated.
- Should prospecting yield mixed or uncertain results then a renewal application for further prospecting on the site will be lodged at the Department of Minerals & Energy. Note that Tasman Pacific Minerals Limited acknowledges that in terms of current legislation, only one renewal application for a period not exceeding 3 years may be granted.
- 3. If the feasibility of the project can be considered positive from the work undertaken in Phase 6, the applicant, in conjunction with the BEE partner, will proceed with the Mining Right application. Full mining of the site will commence after approval is gained in terms of the new Act for a Mining Right. A Prospecting Right grants the applicant exclusive right to apply for a Mining Right.



PART G: Invasive Prospecting Methods

Invasive prospecting consists of two phases:

- Phase 4(b) (Phases 1 to 4(a) being non-invasive) consists of scout reverse circulation percussion drilling.
- Phase 5(b) consists of detailed reverse circulation percussion drilling and some diamond drill holes for "quality control" purposes (Phase 5(a) being non-invasive).

Phase 4(b) & 5(b): Drilling

<u>Drilling Program</u>: Drilling is proposed to take place over a 3 year period in two stages, scout and detailed drilling. Detailed drilling will only be conducted if warranted by promising results from the scout drilling at a particular site, but scout drilling and detailed drilling may take place simultaneously at different sites.

Drilling and sampling methods:

Percussion drilling will be conducted by a truck-mounted reverse circulation drill rig, using a drill hole diameter of approximately 15cm. The drill rig uses compressed air to turn the drill bit and hammer the rock face to obtain rock chips, or cuttings, from the bottom of the hole. These cuttings are then blown back up the hole through a separate section of the drill tube, so as to avoid contamination from the walls of the hole. It is considered that percussion drilling, rather than auger or similar drilling, is necessary due to the hardness of the sandstone units. Reverse circulation drilling is considered necessary due to the expected narrow widths of mineralised sandstone, as it is important to know the exact down-hole depth of the edges of the mineralisation encountered.

During reverse circulation percussion drilling the dust and rock chips (cuttings) will be collected and bagged. Following geological and geophysical logging of the cuttings, sample intervals representing the mineralised zone will be "riffle split", with approximately half the sample being sent to the laboratory for analysis of uranium and molybdenum and the other half remaining at the borehole site, laid out on the ground in bags in order of metreage drilled.

When the prospecting is complete the remaining sample material will be replaced in the hole and compacted. The overburden which was removed prior to drilling will be replaced and compacted. (i.e the topsoil which is removed first with its vegetative layer is replaced last.)

Diamond drilling will also be conducted by a truck-mounted drill rig. This method of drilling uses water to lubricate and cool a diamond-impregnated drill bit which cuts a "core" of rock as it drills ahead. The drill hole diameter will be about 10cm. The drill core is retrieved and laid in core trays where it is logged by a geologist. Intervals requiring analysis are sawn in half lengthways and sent to the laboratory.



The remaining half of the core is retained in the core trays for future use. When the drilling and down-hole surveys are complete the collar of the hole will be sealed with a small numbered concrete plug and the overburden which was removed prior to drilling will be replaced around the plug and compacted.

Drilling grid layout: As the applicant has not had access to the site and reconnaissance geological and geophysical traverses have not commenced, it is not possible to determine where the scout drilling will take place. It is proposed to conduct scout drilling on a series of gridlines across the long axis of any prospective sandstone units discovered by the geological, geophysical and geochemical work. As the expected prospective sandstone units are horizontal, up to 200m wide and may extend up to almost 1km long, the grid lines for the scout drilling of Phase 4(b) will be relatively short (approximately 400m long), approximately 200m apart, with bore holes at 80m intervals along the lines. Access to the lines will be by existing farm roads or fence line tracks wherever possible and each of the grid lines will be served by a single spine road for access.

The detailed reverse circulation percussion drilling of Phase 5(b) is expected to be conducted on a 40 x 40 metre borehole grid pattern to delineate the mineralisation discovered in the scout drilling. Any diamond drill holes will be drilled within one or two metres of its "twin" percussion hole.



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<u>Mitigation of drilling's impact on environment</u>: The truck-mounted drill rigs, the drilling method and personnel involved will result in an impact on the environment if not properly controlled. For this reason, the following actions are considered integral to the drilling method and are included in this prospecting work programme:

- 1. All drilling will take place on a series of gridlines as discussed above. Access to each of the drill holes will be via "gridline tracks" from the spine roads as described and shown diagrammatically above. Access to each of the "gridline tracks" must be kept to an absolute minimum because no topsoil removal will take place prior to access along these gridline tracks, given that the removal of topsoil will constitute a far greater impact than the impact caused by the single vehicle access across the natural vegetation. The impact will be a flattening of the vegetation where the truck and bakkies pass.
- 2. Once at the drill site, only the small amount of topsoil around the drill collar will be removed prior to drilling. The total disturbance footprint at any drill site will be in the order of 30-35 sq m. Once again, the minimal impact caused by the parking of the vehicle at the drill hole and the activities of 1 or 2 people would be far outweighed by the impact caused by the removal of topsoil prior to setting up at the site. The borehole depths are expected to vary between 15m and 25m, with an average of 20m, in the open pittable areas and up to 150-200m in areas that are expected to be accessible only by underground mining methods. Total time at each drill site is in the order of 2-8 hours.
- 3. The drillers and samplers must at all times have a spade and black bags in the vehicle to scoop up any contaminated soil which may arise from an oil leak from machinery or vehicle.
- 4. Any diamond drill water contaminated with oil or drilling lubricants must be contained and removed from the site at the conclusion of drilling.
- 5. No vehicles may travel off the gridline and no diagonal passing between gridlines is to be permitted. Traveling between gridlines must be conducted via the spine road.



PART H: Prospecting Schedule

The proposed prospecting schedule will comprise the following (from the date of approval of the prospecting right) as shown in the table below:

	T	Year 1		Year 2			Year 3	Year4	Yea	r 5			
	1	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	11		H1 T	H2
Approval													
Phase 1													
Establish exploration office		自然的											0.11
Data acquisition	1	MART											
Planning	T	- teres		1									
Conclude agreements with farmers (water use, etc)		42.2.C											_
Geological interpretion of aerial photos	t		let with	1. Cartan						10.000			-
and Landsat Imagery		ASSA-A											
Phase 2	+												
Regional geological and stratigraphic mapping	-	1	In the second	THE R. L.	CONTRACTOR OF	200 MPA							
Regional geophysical traverses	+	-	United Star	S PERMIT	din a.e.	Di Cirra	Section States	-					
Regional geochemical traverses	+			tit for the									
regional geochemical naverses	+			Sale of the second s	ADD SHIEL	Red week	CHECK SHE						
Phase 3	-	1			1.1.1.1								-
Detailed geological and stratigraphic mapping				ALC: NO.	6412	開発的ない	al an alland						
Detailed geophysical traverses	T				to a for	1000.000	1.000	The first of	10.5				
Detailed geochemical traverses	-							1-11-1-		4			
Phase 4(a)	+											+	
Amend PWP & EMP to reflect chosen scout	+												_
borehole locations					招和法								
	T	1	1	(2) STATES	Contraction and			-	-	1			_
Phase 4(b)	+			-	1		-			1		1	
Drilling scout reverse circulation percussion boreholes	1			1	-	1000	725121	No. of Concession, Name	Daliana.				
Phase 5(a)			-				-						
Amend PWP & EMP to reflect chosen detailed	1							2.20.2					
borehole locations	+	-		-						1		-	
Phase 5(b)	+	+	-										
Drilling detailed reverse circulation percussion boreholes	+			1	-		-		TRANCE.	ALL GROUPS	-		
and some diamond drill holes									Har I			1000	
Phase 6	-												-
Pre-feasibility study of economics of mineralisation	+	+	+		-	-	+	1				NHORSEN AND	-
discovered		1									-		
Phase 7	-		-			-	-						-
Deside on future of oils	+		+				-						188
Decide on future of site			-										
Final prospecting result report to DME	+		+			-	-	-	-				
Renewal, Mining Right or Closure Application	+	-							-			-	120
Repapilitation of site					1	1	1	1	1	+	1	1	122

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PART I: Technical data detailing the prospecting method & time required for each phase of the prospecting:

A) Technical data (quantify the extent of invasive prospecting):

Drilling:

Scout drilling will take place on a 200m x 80m grid pattern over anomalous areas discovered by geological, geochemical and geophysical surveys, and detailed drilling will take place on a 40m x 40m grid pattern over areas of mineralisation discovered by the scout drilling. It is planned over the 5-year prospecting period to drill up to 850 reverse circulation percussion holes to an average depth of 20m (or fewer holes to 200m for deeper deposits) and 25 "twinned" diamond drill holes for "quality control" purposes, using truck-mounted drill rigs in each case. Drilling will take place in years 2, 3 & 4.

B) Time required for each phase:

Refer Part H for the proposed schedule of activities. The entire Prospecting Right is required for a period of 5 years.

PART J (i): The applicant's technical ability

Mr Doug Goodall, Managing Director of Tasman Pacific Minerals Limited (TasPac), will coordinate the project management, computer database and data recording, prospecting planning, feasibility study and rehabilitation liability estimates. Mr Goodall is a geologist with 35 years' experience in exploration, mining, project assessment, capital raising and mining research and is well qualified to undertake this role. He has been a Director of BEE company Mmakau Mining (Pty) Ltd for over seven years.

Due to the lack of uranium exploration worldwide for the past 20 years there is a shortage of qualified professionals with experience in prospecting for uranium. TasPac is fortunate to have secured the services of a geologist and a geophysicist who have the relevant experience required.

The prospecting will be managed by Mr Jos Haumann a graduate geologist with 39 years experience in mineral exploration, specifically including uranium prospecting experience with Rio Tinto in the discovery of the Rossing deposit in Namibia and the assessment of the Karoo sandstone-hosted deposit at Edenburg. Mr Haumann is also a Director of BEE company Mmakau Mining (Pty) Ltd.

Dr John Bishop, an Australian geophysicist with uranium prospecting experience and extensive experience in Africa will supervise the geophysical aspects of the work programme.



Site Plan Consulting of 6 Watson Street, Cape Town, 8001, (Tel: 021 4221946) has been appointed to undertake the Environmental Impact Studies, Scoping Studies and to compile the EMP.

The actual drilling operation will be outsourced to an experienced exploration drilling contractor but supervised by TasPac management and consultants.

A laboratory with demonstrable experience in analysis of uranium and molybdenum will be appointed to conduct the analyses.

The resumes of the management and key technical professionals are attached at Annexure B.

Smaller items of prospecting equipment, such as scintillometers, magnetometers, GPS instruments, computers, diamond core saws, sampling equipment, etc, will be owned by TasPac.

Specialised geophysical equipment will be provided by the geophysical contractors for the duration of that phase of the programme.

Drill rigs and operators will be provided by the drilling contractors.

Vehicles (bakkies) will be leased or rented on a long term basis.

Wherever possible, labour from the local areas will be employed to assist in the prospecting activities. It is anticipated that accommodation for office and lodgings will be available in the local area on farms, etc.

The nature of the rehabilitation of drill hole sites and collars allows that work to be conducted by TasPac employees under the supervision of the senior site geologist.



PART J (ii): Financial Ability

The following is required in terms of regulation 7 of the MPRDA: A *budget* and *documentary proof of the applicant's financial ability or access thereto,* which may include but is not limited to the following:

- (a) Loan agreements entered into for the proposed prospecting operation;
- (b) Resolution by a company to provide for the finances required for the proposed prospecting operation;
- (c) Any other mechanism or scheme providing for the necessary finances for the proposed prospecting operation; as well as
- (d) An approved budget signed by a duly authorised person, that guarantees the availability of the funds and
- (e) A current bank statement substantiating the availability of funds.

The expected budget for the prospecting activities over a 5-year period is as shown in Part K. The total amount is budgeted to be in the order of R10,6 million, which over the 5-year prospecting right application period amounts to an average of R176 000/month.



PART K: Cost estimate of the expenditure for each phase

Costs per phase are estimated as follows:	
PHASE 1: DATA COLLECTION, GEOLOGICAL INTERPRETATION AND PLANNING	Rand
Direct Prospecting Costs	and the second
Establish exploration office	
Data acquisition	10000
Planning	
Conclude agreements with farmers (water use, etc)	10000
Geological interpretion of aerial photos	15000
and Landsat Imagery	
Labour Costs	
Salaries: Senior Geologist	100000
Senior field assistant	16000
Costs pertaining to rehabilitation and management of environmental impacts	
None expected	
Any other direct costs	
Aerial photos and Landsat images	7000
Vehicle rental & fuel (x 1)	16000
Accommodation & meals (2 people), office rental	13200
TOTAL PHASE 1	187200
PHASE 2: REGIONAL GEOLOGICAL MAPPING, GEOPHYSICS & GEOCHEMISTRY	Rand
Direct Prospecting Costs	
Regional geological & stratigraphic mapping	7000
Regional geophysical traverses	7000
Regional geochemical traverses	7000
Geochemical analyses	125000
Geophysical consultant	50000
Labour Costs	
Salaries: Geologists (1.5)	390000
Field assistants (4)	156000
Costs pertaining to rehabilitation and management of environmental impacts	
None expected	
Any other direct costs	
Vehicle rental & fuel (x 2)	96000
Accommodation & meals (6 people), office rental	237600
TOTAL PHASE 2	1075600
PHASE 3: DETAILED GEOLOGICAL MAPPING, GEOPHYSICS & GEOCHEMISTRY	Rand
Direct Prospecting Costs	
Detailed geological & stratigraphic mapping	20000
Detailed geophysical traverses	20000
Detailed geochemical traverses	20000
Geochemical analyses	250000
Geophysical consultant	120000
Labour Costs	
Salaries: Geologists (1.5)	487500
Field assistants (4)	195000
Costs pertaining to rehabilitation and management of environmental impacts	
None expected	
Any other direct costs	
Vehicle rental & fuel (x 2)	120000
Accommodation & meals (6 people), office rental	297000
TOTAL PHASE 3	1529500

Prospecting Work Programme, TasPac Site 37



PHASE 4(a): AMENDMENT TO PWP & EMP	Rand
Direct Prospecting Costs	Kana
None	
Labour Costs	
Salary: Senior Geologist	5000
Costs pertaining to rehabilitation and management of environmental impacts	
None	
Any other direct costs	
Consultant for PWP & EMP amendment	10000
PHASE 4(b): SCOUT PERCUSSION DRILLING	
Direct Prospecting Costs	
RC percussion drilling (10 000m x R125/m)	1250000
Sample preparation	25000
Drill sample analyses (2 5000 samples @ R50/sample)	125000
Transport samples/equipment	20000
Labour Costs	
Salaries: Geologists (1.5)	780000
Field assistants (4)	312000
Costs pertaining to rehabilitation and management of environmental impacts	
Rehabilitation of drill hole sites and collars	15000
Any other direct costs	10000
Vehicle rental & fuel (x 2)	192000
Accommodation & meals (6 people) office rental	475200
TOTAL PHASE 4(a) and (b)	3209200
PHASE 5(2): AMENDMENT TO PWP & EMP	Dand
Direct Prospecting Costs	Ranu
None	
Labour Costs	
Salary: Senior Geologist	5000
Costs pertaining to rehabilitation and management of environmental impacts	5000
None	
Any other direct costs	
Consultant for PWP & EMP amendment	10000
PHASE 5(b): DETAILED PERCUSSION DRILLING PROGRAMME	Band
Direct Prospecting Costs	Nanu
Detailed RC percussion drilling (7.000m x R125/m)	875000
Diamond drilling (500m @ R500/m)	250000
Samle preparation	20000
Drill sample analyses (2,000 samples @ R50/sample)	100000
Transport samples (2 000 samples (2 100/sample)	12000
Labour Costs	12000
Salaries' Geologiets (1.5)	877500
Field assistants (4)	351000
Costs pertaining to rebabilitation and management of environmental impacts	331000
Rehabilitation of drill hole sites and collars	10000
Any other direct costs	10000
Vehicle rental & fuel (x 2)	216000
Accommodation & mools (6 pooplo) office contail	210000
ACCULUTION ATOM & THEATS IN DECIDENT ATTEMPT	23 C/1P31 11



Direct Prospecting Costs Computer ore reserve & geological consultants, etc 250000 Mining engineering consultant 120000 Metallurgical consultant 100000 Environmental consultant 100000 Labour Costs Salaries: Senior geologist 300000 Costs pertaining to rehabilitation and management of environmental impacts None expected - final rehabilitation during Phase 7
Computer ore reserve & geological consultants, etc 250000 Mining engineering consultant 120000 Metallurgical consultant 100000 Environmental consultant 100000 Labour Costs 300000 Costs pertaining to rehabilitation and management of environmental impacts 300000
Mining engineering consultant 120000 Metallurgical consultant 100000 Environmental consultant 100000 Labour Costs 300000 Salaries: Senior geologist 300000 Costs pertaining to rehabilitation and management of environmental impacts 300000
Metallurgical consultant 100000 Environmental consultant 100000 Labour Costs 100000 Salaries: Senior geologist 300000 Costs pertaining to rehabilitation and management of environmental impacts 300000
Environmental consultant 100000 Labour Costs Salaries: Senior geologist 300000 Costs pertaining to rehabilitation and management of environmental impacts None expected - final rehabilitation during Phase 7
Labour Costs Salaries: Senior geologist Costs pertaining to rehabilitation and management of environmental impacts None expected - final rehabilitation during Phase 7
Salaries: Senior geologist 300000 Costs pertaining to rehabilitation and management of environmental impacts
Costs pertaining to rehabilitation and management of environmental impacts
None expected - final rehabilitation during Phase 7
None expected - final reliabilitation during Phase /
Any other direct costs
Vehicle rental & fuel (x 1) 96000
Accommodation & meals (1 person + consultants), office rental 118800
TOTAL PHASE 6 1084800
PHASE 7: DATA ANALYSIS, DECISION MAKING & REPORTING
Direct Prospecting Costs
None
Labour Costs
Salaries: Senior geologist 75000
Field assistants (2) 21000
Costs pertaining to rehabilitation and management of environmental impacts
Final rehabilitation of drill hole sites and collars
Any other direct costs
Vehicle rental & fuel (v 1) 24000
Accommodation & meals (3 neonle) office rental 59400
TOTAL PHASE 7 239400
SUMMARY OF ESTIMATED WORK PROGRAMME EXPENDITURE
Each exploration phase is dependent on whether the result of the previous phase was successful or not
Phase 1 Data collection, geological interpretation and planning
Phase 2 Regional geological mapping, geophysics & geophemistry 107200
Phase 2 Detailed geological mapping, geophysics & geochemistry 1075000
Phase 4 Amend PWP & EMP scout percussion drilling 3209200
Phase 5 Amend PWP & EMP, detailed percussion and core drilling 3209200
Phase 6 Pre-feasibility study
Phase 7 Data analysis decision making & reporting 239400
TOTAL 10586800

Assumptions

Drilling:	Reverse circulation percussion Diamond core	R125/metre R500/metre
Analyses:	Uranium and molybdenum, per sample	R50/sample
Salaries:	Senior geologist Geologist Senior field assistant Field assistant	R50 000/month R40 000/month R8 000/month R6 000/month
Vehicle:	Rental and fuel (average)	R400/day



MAP 1 - TOPOGRAPHIC MAP TO ACCOMPANY AN APPLICATION FOR THE AMENDMENT OF AN ENVIRONMENTAL MANAGEMENT PLAN



The figure 176 represents the farms:

1. FARM 585 2. OSKOM 116 P1 3. OSKOM 116 RE 4. FARM 115 **FARM 118** 6. FARM 73 **DOORNFONTEIN 113 P4** ROODE HEUVEL 74 P2 9. DENMARK 119 RE 10. DENMARK 119 P1 11. FARM 120 12. FARM 590 13. FARM 117 P1 14. GROENE VALLEI 226 RE 15. GROENE VALLEI 226 P1 16. GROENE VALLEI 226 P2 17. GEERS KRAAL OUTSPAN 223 RE 18. DE GEERS KRAAL UITSPAN 222 19. RIVER GLEN 221 RE 20. RIVER GLEN 221 P1

in the Magisterial District of Cradock (Map Sheets: 3125 CDand 3225 AB), in respect of which application is being made for an amended Environmental Management Plan in terms of Section 39 of the Mineral and Petroleum Resources Development Act 2000. (Act 28 of 2002)

Total Area: Appox. 22,533.1750 ha

Applicant: Tasman Pacific Minerals Ltd (Australian Co #: 112 181 665) (RSA Co #: 2006/001646/10) 15/2/2010 Department of Minerals and Energy: Date

> TASMAN PACIFIC MINERALS LIMITED



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MAP 2 - GEOLOGICAL MAP TO ACCOMPANY AN APPLICATION FOR THE AMENDMENT OF AN ENVIRONMENTAL MANAGEMENT PLAN

 The figure 1
76

 represents the farms:
 1.

 1.
 FARM 585

 2.
 OSKOM 116 P1

 3.
 OSKOM 116 RE

 4.
 FARM 115

FARM 118 FARM 73 **DOORNFONTEIN 113 P4** ROODE HEUVEL 74 P2 DENMARK 119 RE 10. DENMARK 119 P1 11. FARM 120 12. FARM 590 13. FARM 117 P1 14. GROENE VALLEI 226 RE 15. GROENE VALLEI 226 P1 16. GROENE VALLEI 226 P2 17. GEERS KRAAL OUTSPAN 223 RE 18. DE GEERS KRAAL UITSPAN 222 19. RIVER GLEN 221 RE 20. RIVER GLEN 221 P1

in the Magisterial District of Cradock (Map Sheets: 3125 CDand 3225 AB), in respect of which application is being made for an amended Environmental Management Plan in terms of Section 39 of the Mineral and Petroleum Resources Development Act 2000. (Act 28 of 2002)

Total Area: Appox. 22,533.1750 ha



MAP 3 - DENMARK PROJECT BOREHOLE GRIDS











RID
Legend
Groene Vallei south 50m boreholes
Farm road
New access road
Spine road
Gridline track
Relief line
Groene Vallei south project area
Area_37_Prospecting_Right_modified
jection: Transverse Mercator
ordinate system: Lo 25
um: Cape
licant: Tasman Pacific Minerals Ltd. (Australian Co. #: 112 181 665) (RSA Co #: 2006/001646/10)
A L /
1/10
$H \downarrow \downarrow$
a 02 15/2/2010
gned Date
ROENE VALLEI SOUTH PROJECT AREA
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