



TNG LIMITED

## TENNANT CREEK GOLD (NT) PTY LTD

### MANBARRUM PROJECT

#### FOURTH COMBINED ANNUAL REPORT

**EL24395 (25/09/2009 – 24/09/2010)**

**EL25470 (25/09/2009 – 24/09/2010)**

**EL25646 (25/09/2009 – 24/09/2010)**

**A 24518 (25/09/2009 – 24/09/2010)**

**A 26581 (25/09/2009 – 24/09/2010)**

<b>Tenement/s</b>	EL24395, EL25470, EL25646, A24518, A26581	<b>1:250 000</b> <b>Sheet Name</b>	Auvergne (SD5215)
<b>Holder</b>	Tennant Creek Gold (NT) Pty Ltd	<b>1:100 000</b> <b>Sheet Name</b>	Legune (4767)
<b>Manager</b>	Tennant Creek Gold (NT) Pty Ltd	<b>Datum</b>	GDA94-52
<b>Operator</b>	Tennant Creek Gold (NT) Pty Ltd	<b>GDA_E</b>	519650-553750
<b>Commodity</b>	Zn, Pb, Ag, Fe	<b>GDA_N</b>	8295900-8337950
<b>Elements Analysed</b>	Zn, Pb, Cu, Ag, Co, Ti, Ba, V, Cd, Fe, S, As, Sb, Sn, Cr, Mo, Bi, W		
<b>Keywords</b>	Diamond drilling, analytical results, Legune Fe Deposit, Resource Estimate, Mineral License, Traditional Owners, Manbarrum Project Sale		
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<b>Report Date</b>	October 2010		
<b>Distribution</b>	Department of Resources – Minerals and Energy TNG Limited		(1) (1)

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## **EXECUTIVE SUMMARY**

The Manbarrum Project is operated by Tennant Creek Gold (NT) Pty Ltd, a wholly owned subsidiary of TNG Limited. The project comprises five exploration titles (EL24395, EL25470, EL 25646, A24518, A26581) covering a 50 kilometre strike length of the SE margin of the Bonaparte Basin, where widespread Mississippi Valley Type (MVT) Zinc-Lead-Silver mineralisation has been located.

During the period 25/09/09 to 24/09/10 work on the Manbarrum Project included analysis of the results received from the 2009 drilling programme at the Browns and Sandy Creek Prospects (A26581 & A24518), and a new Resource Estimate was produced, taking into account these results and the recommendations of the Data Review undertaken in 2009. The drilling confirmed that the Browns Prospect mineralisation is similar to that at Sandy Creek and that further exploration should be undertaken in the area.

The Legune Iron Ore Prospect was sold to private Chinese resource company, Teng Fei Mining Ltd, (TFM). The final payment for the sale was received in March 2010 and does not affect TNGs interest in the Manbarrum Project as a whole.

A binding agreement for the sale of the Manbarrum Project as a whole was signed by TFM in May 2010. TFM subsequently withdrew from the sale stating that they were unable to proceed with payment and the matter is now under a legal time-frame to ascertain TFM's final position.

In September 2010 TNG reached an agreement with the Traditional Owners and the Northern Land Council to extend the existing exploration agreement and progress the Mineral Lease Application (MLA) for the Manbarrum Project.

Total expenditure for the reporting period was \$845,099.

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## 1. INTRODUCTION

The Manbarrum Project is operated by Tennant Creek Gold (NT) Pty Ltd, a wholly owned subsidiary of TNG Limited.

The project comprises five exploration titles (A24518, A26581, EL24395, EL25470 and EL25646), covering a 50 kilometre strike length of the SE margin of the Bonaparte Basin, where widespread Mississippi Valley Type (MVT) Zinc-Lead-Silver mineralisation has been located.

TNG's primary objective has been to delineate a significant inventory of zinc-lead-silver resources in the Manbarrum project area.

During the 2009-2010 reporting period analytical results from previous drilling became available. An updated Resource Estimate has taken into account these results along with information from the Data Review completed in July 2009. An agreement has been signed with the Northern Land Council and Traditional Owners to extend the existing exploration agreement over the Manbarrum Project. The Legune Fe deposit was sold to the Chinese resource company Teng Fei Mining while the sale of the project as a whole was stalled and the matter is currently in the hands of TNG's legal representatives.

## 2. LOCATION AND ACCESS

The Manbarrum Project is located in the North Western part of the Northern Territory, on Legune station, approximately 70km north east of the regional centre of Kununurra (WA) and at approximate lat -15 Deg 24' 21", long 129 Deg 11' 48" on the Auvergne 1:250,000 map sheet. Access is via sealed, then good but unsealed station tracks. These are accessed during the dry season only. Travel time by road from Kununurra is approximately one hour. A location map is shown in Figure 1.

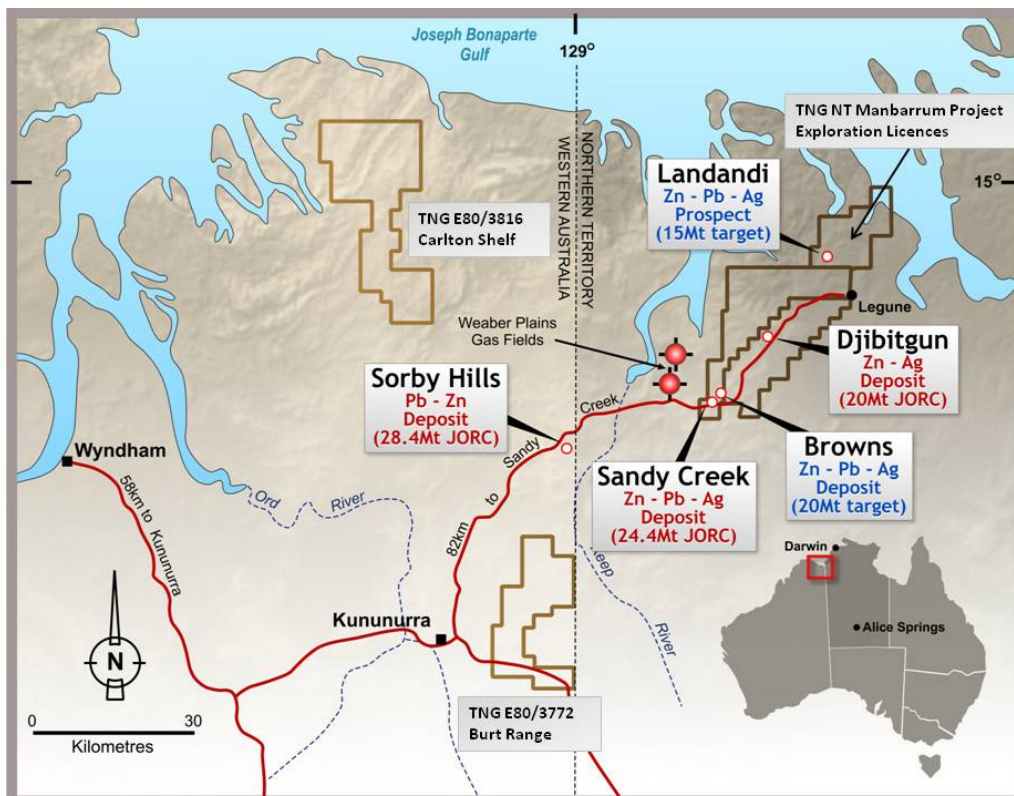


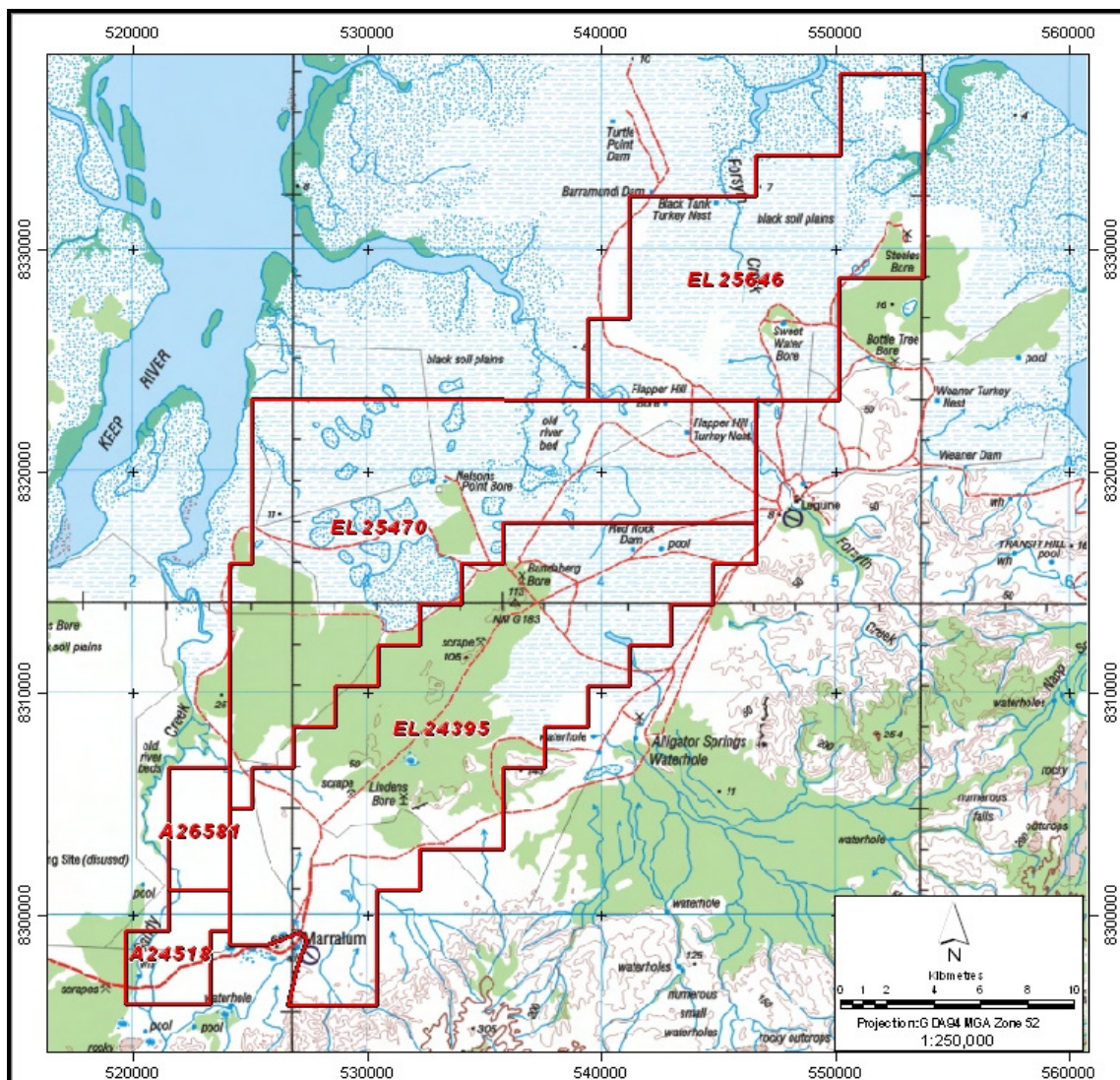
Figure 1: Location of the Manbarrum Project tenements.

### 3. TENURE

The Manbarrum Project comprises five tenements: A24518, A26581, EL24395, EL25470 and EL25646 (Table 1; Figure 2). All tenements are held by Tennant Creek Gold (NT) Pty Ltd. Approval for combined technical reporting for the Manbarrum Project was received on 10 September 2007 for the agreed end date of 24 September each year.

**Table 1: Manbarrum Tenure**

Title	Area (blocks)	Area (km)	Application Date	Grant Date	Term (Years)	Reporting Period
EL24395	65	200.5	08/09/04	16/08/05	6	12 months
A24518	6	16.85	15/12/04	23/08/05	6	12 months
EL25470	63	199.3	13/07/06	05/03/07	6	12 months
EL26646	39	129.9	16/10/06	23/08/07	6	12 months
A26581	6	16.8	14/01/08	01/08/08	6	12 months



**Figure 2: Manbarrum Project Tenements**

## **4. LAND ACCESS**

In September 2010 TNG reached an agreement with the Traditional Owners and the Northern Land Council to extend the existing exploration agreement and progress the Mineral Lease Application (MLA) for the Manbarrum Project.

The agreement clears the way for establishing an Indigenous Land Use Agreement (ILUA) and granting of the Mineral Lease which is a pre-requisite to undertaking mining at the Manbarrum Project and represents an important phase for the Project.

Importantly the agreement extends the existing area of exploration to include all exploration licences held 100% by TNG. Numerous additional priority exploration targets have been identified within the field, with the potential to deliver similar-scale deposits to those already defined at Sandy Creek and Djibitgun. These targets include the Landandi and Browns prospects, which support a broader potential Exploration Target.

The ILUA agreement process will be managed by the NLC and is expected to take several months. During this process TNG will consider further metallurgical and feasibility studies.

## **5. MANBARRUM PROJECT SALE**

### **5.1 Legune Iron Ore Prospect**

On the 25<sup>th</sup> of November 2009 TNG signed a binding Mineral Rights Agreement with a private Chinese resource company, Teng Fei Mining Ltd, (TFM).

The agreement provided for the 100% sale by TNG of the rights to explore and advance the Legune Iron Ore prospect located on TNG's 100% owned Manbarrum Project.

The final payment for the project was received in March 2010 and does not affect TNGs interest in the Manbarrum Project as a whole.

### **5.2 Manbarrum Zn-Pb-Ag Project**

On the 11<sup>th</sup> of May 2010 TNG signed a binding agreement to sell the Manbarrum Zinc-Lead-Silver Project in the Northern Territory to privately owned Chinese resource company, Teng Fei Mining Ltd, (TFM).

Under the agreement TNG were to receive a 2% Net Smelter Return (NSR) on any future mining production from the Manbarrum tenements.

The agreement was to enable TNG to realise immediate value from the Manbarrum asset, while retaining future upside exposure to the development of the zinc-lead-silver resources defined on the tenements.

On the 8<sup>th</sup> of June TNG received correspondence from TFM stating that they were unable to proceed with the initial payment which was due several days later. The matter is now under a legal time-frame to ascertain TFM's final position.

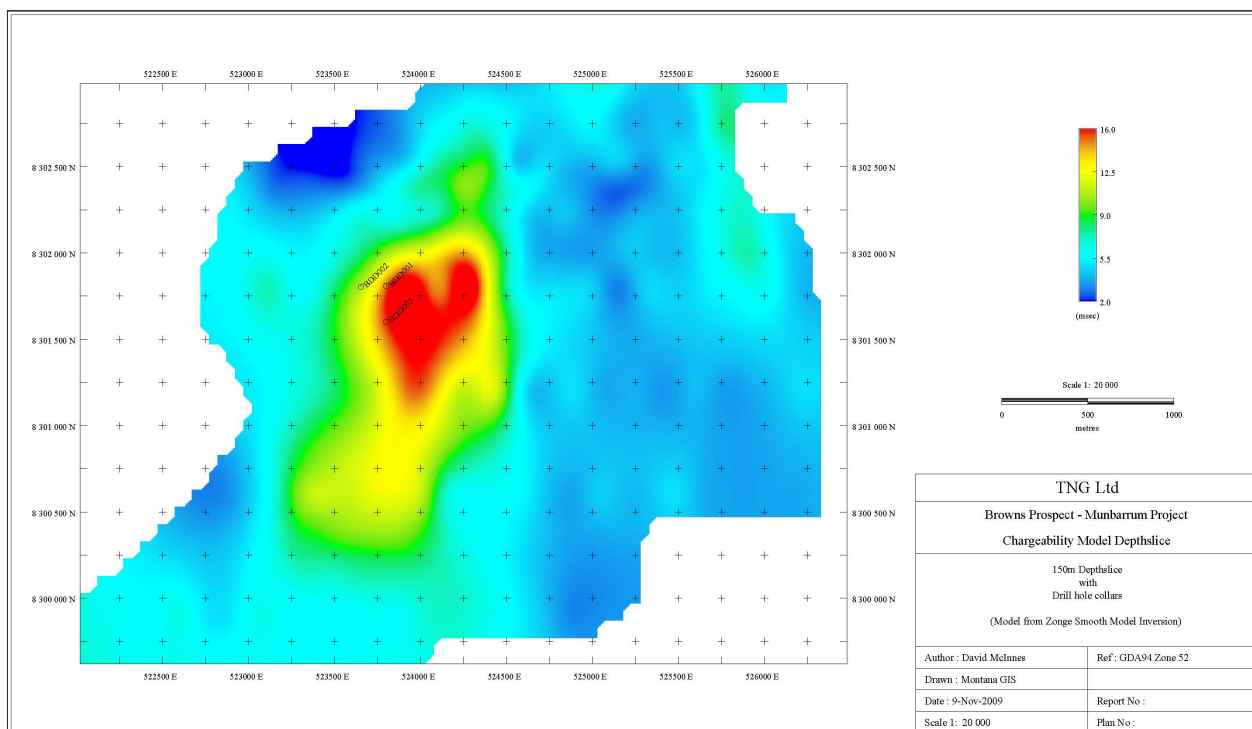
The Department of Resources approved a request by TNG to waive the nomination of graticular blocks and the requirement to meet expenditure commitments in the Manbarrum Project area whilst the legal process continues (Appendix 1).

## 6. 2009 - 2010 EXPLORATION

During the 2009-2010 reporting period analytical results from drilling carried out in the last reporting period became available. An updated Resource Estimate was produced taking into account the above information and recommendations from the Data Review undertaken in July 2009.

### 6.1 Browns Prospect Drilling Results

The three diamond drill holes, BDD001 to BDD003, were completed in September 2009 targeting the western edge of a large Induced Polarisation (IP) anomaly that forms the Browns prospect (Figure 3).



**Figure 3: Browns Drill holes on IP.**

This drilling program was limited due to time constraints on the diamond rig and was therefore aimed primarily at testing to see if the prospect was mineralised and if any mineralisation intersected was consistent with the MVT-style mineralisation seen at the other discoveries in the area.

The mineralised zones at the Browns and Sandy Creek Prospects were sampled in 1m intervals as whole core. The whole core sampling aimed to limit any potential loss of fine-grained zinc and lead sulphides±oxides on fracture surfaces from core cutting and hence ensure that the analysis of the sample would be a true representation of contained metal.

The sample processing and analysis was completed by Amdel Mineral Laboratories Ltd, under the supervision of Mineral Engineering Technical Services Pty Ltd (METS). The samples were analysed as follows.

Source	Sample Interval	Analysis	Density analysis
Exploration	B10001 - B10399	Zn, Pb, Cu, Ag, Co, Ba, Cd, Fe, S, As by ICP	None
Resource	B10400 - B10569	Zn, Pb, Cu, Ag, Co, Ti, Ba, V, Cd, Fe, S, As, Sb, Sn, Cr, Mo, Bi, W by ICP	Every 5 <sup>th</sup> sample
Outside Return Samples	MR10001B - MR10005B	Zn, Pb, Cu, Ag, Co, Ti, Ba, V, Cd, Fe, S, As, Sb, Sn, Cr, Mo, Bi, W by ICP	None



The best intercepts shown below were all recorded from an Upper Breccia Zone:

BDD002: **1m @ 1.80% Zn, 0.22% Pb** from 96m - UPPER BRECCIA ZONE;  
 BDD002: **3m @ 2.03% Zn, 0.01% Pb, 10g/t Ag** from 101m - UPPER BRECCIA ZONE  
*(incl: 1m @ 2.56% Zn, 0.006% Pb, 10g/t Ag from 101m)*; and  
 BDD003: **1m @ 1.72% Zn, 0.91% Pb** from 99m - UPPER BRECCIA ZONE.

These intercepts correspond to isolated zones of fine-grained yellow sphalerite veinlets, commonly associated with medium-grained disseminated galena and variable alteration in the host rock, the sandy dolomite. These zones are similar in style to those seen at the nearby Sandy Creek deposit.

The assay results suggest that the fracture-hosted zones within the sandy dolomite have sphalerite associated with them and are a controlling feature of the mineralisation, which also occurs at the Sandy Creek deposit.

All core samples were submitted to TNG's metallurgical consultants who managed the preparation and analytical process. Significant results are shown in Tables 2 and 3 below. Full results are included in Appendix 2.

**Table 2: Analytical results from Diamond core samples.**

HoleID	Collar Easting	Collar Northing	Dip	Az (mag)	From (m)	To (m)	Width Metres	Zn+Pb%	Zn %	Pb %	Ag g/t
<b>BDD001</b>	523,800	8,301,808	-60	90	80	82	2	1.20	1.11	0.1	15
					87	89	2	1.23	1.10	0.14	6
					91	94	3	1.63	1.53	0.1	5
					96	98	2	1.06	0.86	0.20	<5
<b>BDD002</b>	523,653	8,301,803	-60	90	84	87	3	0.86	0.75	0.10	3
					89	92	3	1.33	1.23	0.11	5.8
					<b>96</b>	<b>97</b>	<b>1</b>	<b>2.02</b>	<b>1.80</b>	<b>0.22</b>	<b>&lt;5</b>
					<b>101</b>	<b>104</b>	<b>3</b>	<b>2.04</b>	<b>2.03</b>	<b>0.01</b>	<b>10</b>
<b>BDD003</b>	523,800	8,301,600	-60	90	72	76	4	1.21	0.91	0.30	6.25
					82	83	1	1.40	0.68	0.72	<5
					87	88	1	1.29	0.64	0.66	<5
					90	93	3	1.32	1.22	0.10	<5
					<b>99</b>	<b>100</b>	<b>1</b>	<b>2.63</b>	<b>1.72</b>	<b>0.91</b>	<b>&lt;5</b>
					112	114	2	1.03	1.02	0.005	<5
<b>164</b>	<b>172</b>	<b>8</b>	<b>1.34</b>	<b>1.18</b>	<b>0.17</b>	<b>&lt;5</b>					

The analytical results of the drilling are of generally low-level. However, almost 50% of the assay results returned values >0.1% Zn as Zinc Sulphide (sphalerite) and significant widths of mineralisation above 0.5% Zn (Table 3).

**Table 3: Summarised data from completed assays.**

Hole Number	Sample ID	Interval, m	% Zn	% Pb
BDD01	B10010-10041	29	0.53	0.067
BDD02	B10135-10138	4	0.91	0.30
BDD02	B10155-10165	10	0.70	0.16
BDD02	B10177-10180	4	0.71	0.007
BDD03	B10237-10245	8	1.2	0.17
BDD03	B10275-10298	22	0.74	0.04
BDD03	B10331-10332	2	0.56	0.0065

While the assay results are generally of low tenor, the drilling has been successful in confirming the presence of MVT-style mineralisation at the Browns prospect. The mineralisation is consistent between all holes and the grades are similar to those encountered at the edge of the Sandy Creek mineralised envelope. The Browns IP anomaly is large, extending for some 2km x 1km as shown in Figure 2, and there is significant scope for additional mineralisation to be located.

To establish if a resource is present a further programme of Reverse Circulation drilling is now required targeting the western edge of the IP anomaly and favourable gravity targets. This will be planned to commence in the next field programme in 2010.

## 6.2 Resource Estimate

The previous resource estimate on the Sandy Creek Deposit was carried out in April 2008 and reported at a cut-off grade of 1% Zinc. This estimate was based on an incomplete data set due to drilling and sampling issues which TNG has resolved with independent consultants during 2009. Both TNG and its consultants consider that the new geological interpretation and resource model reflects more accurately the type and style of the mineralisation at Sandy Creek. Comparisons of the grade and tonnage with the previous resource have been made at a 1% zinc cut-off.

The updated mineral resource estimate has resulted in an increase of **54 per cent to 24.4 million tonnes at 2.26% zinc plus lead, at a cut-off grade of 1% zinc.**

The new resource estimate has been estimated by Snowden Mining Industry Consultants and integrates TNG's increased understanding of the Sandy Creek geology and controls on the mineralisation. This increased understanding of the deposit geology will assist in optimizing the on-going exploration strategy for the Manbarrum Project.

Snowden has taken the revised geological interpretation provided by TNG which incorporates new geological data from drilling carried out in 2009, and modelled a stratabound deposit within which the resource is contained. This has primarily been defined on lithological and fault controls on the distribution of the zinc dominated mineralisation.

The updated Sandy Creek Zinc resource estimate is shown in Table 4 reported at a cut-off grade of 1% Zn and a grade tonnage curve for the deposit mineralisation is shown in Figure 4. A full report is attached as Appendix 3.

**Table 4: Sandy Creek Zinc Mineral Resource, as at March 2010 at a 1.0 % Zn cut-off.**

Material	Classification		Tonnes	ZN	PB	AG
Oxide	Indicated		575,000	1.45	0.43	5.14
	Inferred		877,000	1.26	0.28	3.24
	Total		1,452,000	1.34	0.34	3.99
Primary	Indicated		12,906,000	2.07	0.57	4.77
	Inferred		10,023,000	1.54	0.30	4.40
	Total		22,929,000	1.84	0.45	4.61
<b>Total</b>			<b>24,381,000</b>	<b>1.81</b>	<b>0.45</b>	<b>4.57</b>

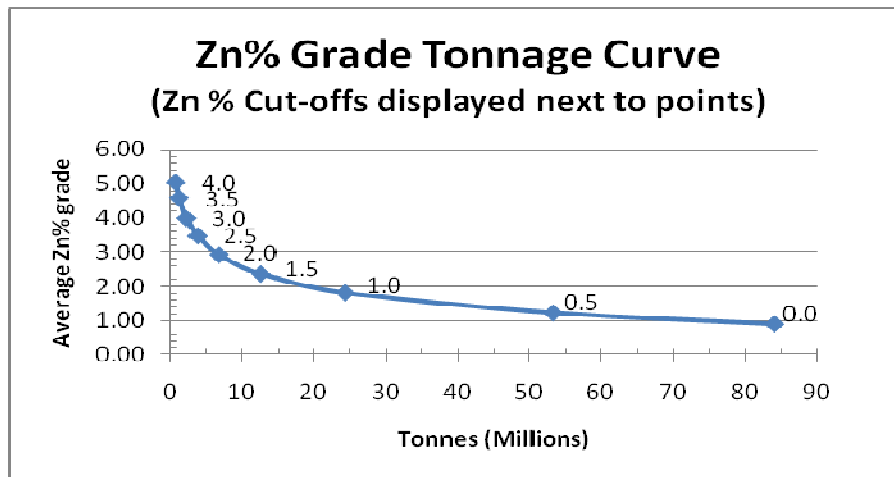


Figure 4: Grade / Tonnage graph for the Sandy Creek deposit.

## 5. EXPENDITURE 2009-2010

Total expenditure on the Manbarrum Project for the 2009-2010 period is \$845,099 as shown in Table 5.

Table 5: 2009-2010 Expenditure

Category	A24518 (\$)	EL24395 (\$)	EL25470 (\$)	EL25646 (\$)	A26581 (\$)
Office Studies	46,537.43	45,186.05	33,046.72	43,557.81	47,602.63
Office Costs			2,396.94		
Exploration Camp Costs					17,001.12
Contractors - Geological	59,620.85	6,402.85	2,544.57	2,402.85	16,252.85
Contractors - Metallurgical	45,525.38				2,863.87
Contractors - Resource & Mining	18,672.50				
Contractors - General	1,215.82	17,600.00	10,099.19	5,000.00	
Motor vehicle costs	4,113.71	4,473.04	5,263.28	1,705.79	4,050.61
Couriers and Freight	975.56	1,231.08	673.22	947.83	931.08
Diamond Drilling	112,128.61				112,128.60
Drilling Consumables					9,317.65
Field consumables/hire	4,225.26	1,046.60	294.60	2,269.10	1,344.88
Access and Rehabilitation	4,069.95	5,069.09			2010.94
Travel and Accommodation	27,670.89	31,487.09	7,969.18	6,688.72	18,483.90
Teng Fei Expenditure		37,500			
<b>TOTAL</b>	<b>325,169.96</b>	<b>150,695.80</b>	<b>72,609.80</b>	<b>64,631.10</b>	<b>231,992.13</b>
<b>2009-2010 COVENANT</b>	<b>100,000</b>	<b>150,000</b>	<b>85,000</b>	<b>60,000</b>	<b>100,000</b>

## **6. EXPENDITURE COMMITMENT & WORK PROGRAM 2010-2011**

The Department of Resources approved a request by TNG to waive the nomination of graticular blocks and the requirement to meet expenditure commitments in the Manbarrum Project area whilst the legal process involving Teng Fei Mining continues (Appendix 1). The Department will be provided with updates as they become available.



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## **TENNANT CREEK GOLD (NT) PTY LTD**

### **MANBARRUM PROJECT**

### **COMBINED ANNUAL REPORT**

#### **APPENDICES**

APPENDIX 1 – Department of Resources, Waiver of Reduction and Expenditure

APPENDIX 2 – Digital Data

APPENDIX 3 – Sandy Creek Resource Estimate 2010

## **APPENDIX 1**

**Department of Resources, Waiver of Reduction and Expenditure**

## **APPENDIX 2**

### **Digital Data**

## **APPENDIX 3**

### **Sandy Creek Resource Estimate 2010**