

# OUTSTANDING GRAPHITE AND VANADIUM RESULTS FROM NICANDA HILL

#### **HIGHLIGHTS:**

- Key drilling results received for diamond hole GBND0001, with weighted average graphite carbon (GrC):
  - 75.9m at 9% GrC, including
  - 37.3m at 11% GrC
  - 7.6m at 14.1% GrC
  - 4.4m at 18.3% GrC
- HG1 verified by diamond Hole GBND0001, with 37.3m at 11% GrC, including intersections of up to 2m at 20.3% GrC
- Overall diluted graphite RC assay results, at 10% cutoff, of 12.6% GrC
- Numerous drillhole intersections of high-grade Vanadium (V) at Nicanda Hill including intercepts of:
  - 2m at **0.36% V** from 113m in GBNC0003
  - 2m at **0.31% V** from 11m in GBNC0004
  - 2m at 0.32% V from 106m in GBNC0009
- Initial analytical results return average vanadium grade of 0.13%V equivalent to 0.23% V₂O₅.
- Extended RC drill hole (GBNC0010) intersects a total of 237m graphite mineralisation from near surface, finishing in graphite mineralisation and remains open at depth
- RC drill hole GBNC0010 confirms the presence of HG1 zone
- Northern RC holes intersect 186m of graphite mineralisation from close to surface, finishing in graphite mineralisation and remains open at depth.

**Triton Minerals Limited** (ASX: TON, "Triton", "the Company") is pleased to confirm the next series of assay results from the RC and Diamond drilling program, that continues to confirm substantial graphite mineralisation and the extension of multiple high grade graphite zones, whilst showing a strong presence of vanadium over considerable distances throughout the graphite mineralisation zone at Nicanda Hill.

Triton Minerals Managing Director Brad Boyle said "Once again these are exceptional drilling results confirming Triton's belief in the Balama North project. With the presence of both high grade graphite and vanadium, the Nicanda Hill prospect continues to deliver on every front and is currently looking to grow into one of the largest graphite projects in the world and now appears to have additional potential in light of these recent vanadium results."



### **Diamond Hole (GBND0001) Results**

On 4 June 2014, Triton announced that Diamond hole GBND0001 had intersected graphite schist for a cumulative drilled width of **316m**, with narrow intervals of non-graphitic tonalite gneiss over the final drilled length of 372.7m.

The Company is pleased to advise that the key assay results have now been received over the priority 155-231m interval only for diamond hole GBND0001, showing some very good interceptions of the graphite mineralisation with weighted average graphite grades up to 18.3% GrC. Note that the compositing criteria currently utilized includes up to 2m of internal waste (grades below cut off) and thus reported average grades are diluted to this extent.

Hole_ID	From (m)	To (m)	Interval (m)	GrC%
GBND0001	155.0	230.9	75.9	9.0
includes	193.7	228.5	37.3	11.0
includes	195.7	203.3	7.6	14.1
includes	210.9	215.3	4.4	18.3

Table 1. Selected interceptions of weighed average graphite grades from diamond hole GBND0001

As interpreted and modelled by Triton, diamond hole GBND0001 has once again verified the presence of the target zone of HG1 (Figure 1). This high grade graphite zone contained a weighted average graphite carbon of 37.3m at 11% GrC, including higher grades including intersects of 2m at 20.3% GrC.

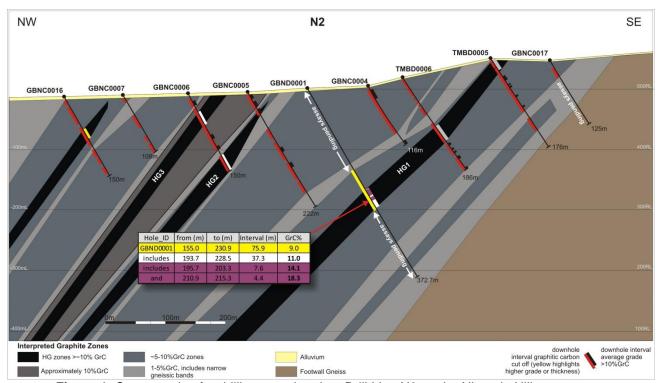


Figure 1. Cross section for drilling completed on Drill Line N2 on the Nicanda Hill prospect.



#### **Vanadium Results**

Triton confirms receipt of assay results that are testing for vanadium content in the drill core samples from the current RC drilling program. Only a limited number of samples have been analysed to date, with the rest of the drill samples yet to be tested.

The initial limited testing program consisted of 383 samples. The analytical results to date show, at 0.05%V cutoff grade, the weighted overall average for the vanadium is **0.13%** which is an equivalent to **0.23%** of  $V_2O_5$  (Vanadium Pentoxide).

The vanadium results are very encouraging and some of the assay highlights obtained during this process include vanadium grades of up to **0.36%**, which is equivalent to **0.64%** of  $V_2O_5$  (Table 2, Appendix 2).

Hole_ID	From (m)	To (m)	nterval (m)	V (%)	V <sub>2</sub> O <sub>5</sub> %
GBNC0003	113	115	2	0.36	0.64
GBNC0004	11	13	2	0.31	0.54
GBNC0009	106	108	2	0.32	0.56
GBNC0009	120	122	2	0.31	0.53

**Table 2.** Table showing some of the highest Vanadium intercepts obtain from the Nicanda Hill prospect drilling program in 2014

Triton confirms all drill cores from Nicanda Hill show the presence of roscoellite and as such the Company has undertaken a systematic multi-element assaying program to assess the potential for economic concentrations of vanadium in all drill samples obtained to date. Triton is keen to see whether these strong initial vanadium results can continue to be replicated in the rest of the drill core samples.

Due to these encouraging initial vanadium results, which in some cases occur over intervals of up to 80m (Appendix 3), Triton will expand the current metallurgical test work program to review and incorporate options, looking at whether the vanadium can be recovered economically from the Nicanda Hill prospect drill core samples and what extraction methods would be considered appropriate to achieve this outcome.

### **Exploration Drilling Highlights**

The Company announced on 22 January 2014 that the diamond drilling results from November 2013, confirmed numerous occurrences of high grade graphitic mineralisation at the Nicanda Hill prospect at and just below surface and continuing to depth, with very high grades of up **28.6%** graphite carbon intersected only 17m down hole in TMBD0005.

Triton confirms the graphite results received to date during this current RC and Diamond drilling program continue to be very encouraging. In the current drilling program there have been multiple intersections of high grade graphite of up to **20.3%** (Table 3).



To date, the results from the current RC and Diamond drilling program have returned overall graphite grades of **12.6%** GrC using a 10% cutoff grade. For further information please refer to Appendix 1.

Hole_ID	From (m)	To (m)	Interval (m)	GrC%
GBNC0003	121	123	2	20.3
GBNC0003	117	119	2	19.7
GBNC0003	123	125	2	19.4
GBNC0009	114	116	2	18.8
GBNC0003	113	115	2	18.4
GBNC0003	111	113	2	18.3
GBND0001	211	213	2	19.2

**Table 3.** Table showing some of the highest graphite intercepts obtained from the Nicanda Hill prospect drilling program in 2014



Figure 2. Drill core from Nicanda Hill in Diamond Hole (GBND0001) taken from about 223m to 228m.

The drilled graphite mineralization intersections continue to correlate well with the zone of high electrical conductivity defined by the VTEM survey data. The Company is yet to drill on the western slopes of the Nicanda Hill topographic high, which appears to give rise to an intense VTEM response. Recent survey data confirms that the peaks of the Nicanda Hill has an elevation of more than 90m above the height of collars of the current drilled holes.

These latest results confirm the Company's belief that the graphite mineralisation potential continues down dip to the northwest to far greater depths than already intersected in GBND0001 and the Company is excited by the fact that the zone still remains open to the northwest.

The results from GBND0001 reinforces the Company's belief that the Balama North project can potentially host a market-leading and world class graphite deposit.



Triton has already delineated a graphite zone at the Nicanda Hill prospect that is **1000m** wide, over **400m** deep and **3.2kms** long with multiple high-grade graphite zones with several that have a true zone width of up to 90m.

### **Extension of RC Drill Hole GBNC0010**

Triton confirms that RC drill hole GBNC0010 was drilled in the early stages of the RC drilling program, prior to the identification of HG1 zone at the Nicanda Hill prospect.

As previously announced 27 July 2014, GBNC0010 intersected **84m at 9.6% GrC**. In order to test the interpretation of the various high grade graphite zones, including the continuation of the HG1, the Company undertook to extend the RC drill hole with a diamond tail from 150m to a total hole depth of 291m.

Triton confirms that, based on visual logging of the drill core, the hole has intersected a cumulative total of **237m** graphite mineralisation from close to surface, finishing in graphite mineralisation and remains open at depth (Figure 3).

Based on the logging of the drill core the Company also verifies that RC drill hole GBNC0010 confirms the presence of the HG1-zone host-lithology in the predicted target zone. Assay results are still pending for the remainder of GBNC0010 diamond drill core.

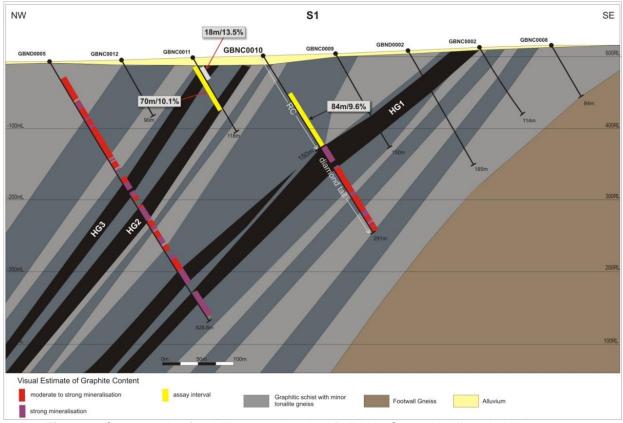


Figure 3. Cross section for drilling completed on Drill Line S1 on the Nicanda Hill prospect.



### **Northern Extension of Graphite Zone**

As previously announced by Triton on 27 July 2014, the graphite mineralisation zone at the Nicanda Hill prospect had been substantially expanded to the North with drill sections N6 and N12 (Figures 4 & 5).

These RC drill results provided further proof of the graphite mineralisation **continuity over** a **strike length of 3.2kms** between drill sections N12 and S5 (Figure 6).

Triton has now completed the visual logging of these holes and confirms substantial graphite mineralisation has been intercepted in all of the RC drill holes in N6 and N12.

Drill hole GBNC0034 has intersected multiple zones containing graphite for a total drilled width of **186m**. The graphite mineralisation is from close to surface, finishing in graphite mineralisation and remains open at depth.

The entire intersection appears to be graphite-bearing material apart from several small intervals of either low or non-graphitic material. These thin intervals appear to be too narrow to pose any difficulties going forward.

These drill results confirm that the graphite mineralisation is not only continuous along the entire strike length of the Nicanda Hill prospect, but the Company believes the graphite mineralisation has potential and continues down dip to the northwest to considerably greater depths than the 186m already intersected on drill section N12.

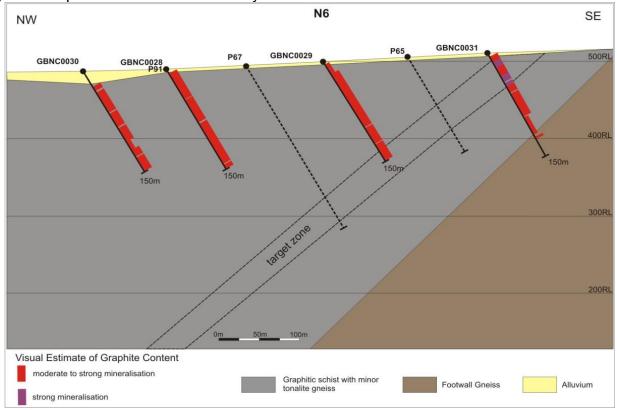


Figure 4. Cross section for drilling completed on Drill Line N6 on the Nicanda Hill prospect.





Visual inspection of the drill samples identifies a zone of the strong graphite mineralisation in both drill sections N6 and N12. Triton believes this zone could confirm the continuation of the HG1 zone from drill section N2.

The drilled graphite intersections continue to correlate well with the zone of high conductivity defined by the VTEM survey data. Further, the strong graphite mineralisation confirms the interpreted geological model in which the high grade graphite zones extend further to the North, as shown in Figures 4 and 5. Additional Diamond drill holes are planned to further drill test and intercept the potential high grade target zones.

Triton confirms that additional RC and Diamond drill holes are planned to further drill test the true width and continuity of the graphite mineralisation zone between drill section N6 and N12 and beyond.

However, the main focus of the drilling program will continue to be on the continuity and intersection of the various high grade zones along the entire length of graphite mineralisation strike zone, at Nicanda Hill which is up to 5kms in length.

The drilling to date has continued to demonstrate the continuity and consistency of graphite mineralisation and the strong correlation with the VTEM survey data.

These drilling results continue to expand the depths and width of the defined graphite mineralization zone on the Nicanda Hill prospect, with the zone still remaining open to the north, south and west.

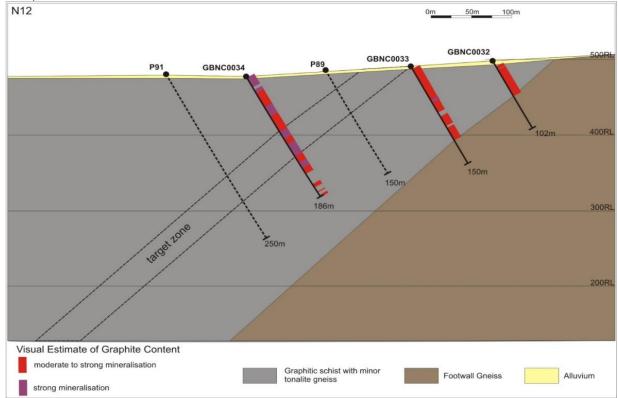
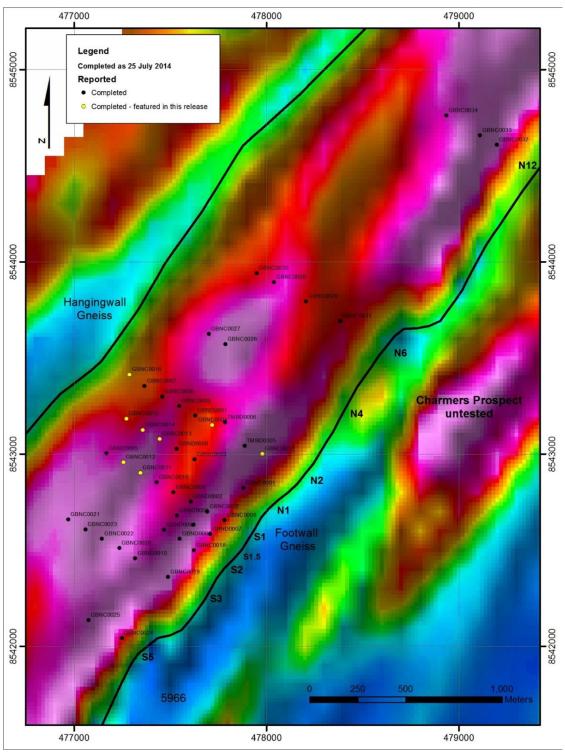


Figure 5. Cross section for drilling completed on Drill Line N12 on the Nicanda Hill Prospect



**Figure 6.** Location of completed RC and Diamond drill holes on the Nicanda Hill Prospect. Base image is the 50m conductivity depth slice from the VTEM survey overlain by elevation contours highlighting the topographic high of Nicanda Hill and the ridge east of Cobra Plains. The drill lines N2, S1, N6 and N12 are presented in Figures 1, 3, 4 and 5 respectively.



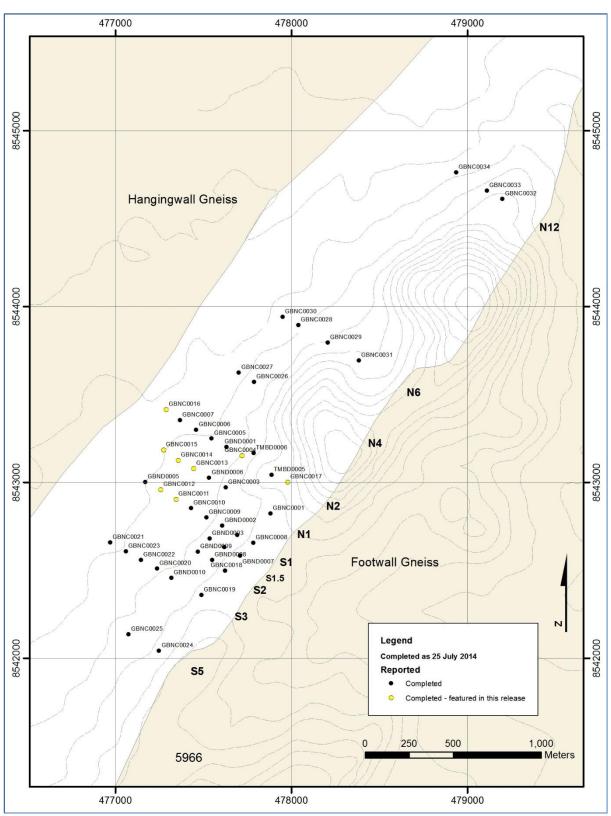


Figure 7. Nicanda Hill prospect drill hole location plan.



#### **KEY POINTS**

#### Size and Scale

- Substantial graphite mineralisation thickness confirmed in the Northern section of the Nicanda Hill prospect.
- The reported results reaffirm the multiple high grade graphite zones of substantial widths along the entire length of all drill holes completed to date.
- The latest observations demonstrate good continuity and consistency in the graphite mineralisation over a considerable distance of 3.2km.

#### Grade

- Weighted average from all RC drill holes to date is 12.6% GrC at 10% cut off.
- GBND0001 confirms the extension of HG1.
- Results continue to verify the continuity and consistency of previously identified high grade zones.

#### Vanadium

- High grade Vanadium confirmed at Nicanda Hill.
- Vanadium weighted average is 0.13% (equivalent to 0.23% V₂O₅).
- Selected grades of 0.36%V (equivalent to 0.64% V<sub>2</sub>O<sub>5</sub>).

#### **Exploration**

- Drilling now focused on intersecting the high grade zones.
- The drilled graphite mineralization intersections correlate strongly with the zone of high electrical conductivity defined by the VTEM survey data.

#### **IMPLICATIONS**

These latest drill results continue to confirm the Company's belief that the Balama North project can potentially host a market-leading and world class high grade graphite deposit. The potential of the project has now been expanded further with the identification of the high grade vanadium. It is anticipated that this drilling will provide the necessary data to estimate a Mineral Resource for this prospect by late 2014.

Triton is optimistic that the current drill program will continue to delineate various continuous high grade graphite mineralised zones at the Nicanda Hill prospect and in doing so could possibly make the Balama North project one of **largest high grade graphite projects in the world**.

4 August 2014

Triton is extremely confident of continued exploration success and is looking forward to providing further exploration updates to the market, as the information becomes available.

Regards

Brad Boyle Managing Director Triton Minerals Ltd

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#### **Competent Person's Statement**

The information in this report that relates to Exploration Results on Balama North project is based on, and fairly represents, information and supporting documentation prepared by Mr. Alfred Gillman, who is a Fellow of Australian Institute of Mining and Metallurgy (CP Geol). Mr. Gillman is a Non-Executive Director of the Company. Mr. Gillman has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr. Gillman consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.

The information in this announcement that relates to Exploration Results on Balama North project is extracted from the reports entitled ASX Release "High Grade Graphite Discovery at Nicanda Hill" created 22 January 2014 and ASX Release "Exceptional Graphite Interceptions At Nicanda Hill" created 19 May 2014, ASX Release "Enormous Graphite Intercepts At Nicanda Hill", created 4 June 2104, ASX Release "Significant High-Grade Graphite Intersected At Nicanda Hill" created 23 June 2014 and are available to view on www.tritonmineralsltd.com.au The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not necessarily limited to, statements concerning Triton Minerals Limited's planned exploration program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate" "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Triton Minerals Limited believes that its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.



### **Appendix 1**

Weighed average graphite grades, at a 10% cutoff grade, the obtained to date from the Nicanda Hill prospect from RC drilling during the 2014 drilling program.

Hole_ID	From (m)	To (m)	Interval (m)	GrC%
GBNC0002	15	21	6	12.0
GBNC0003	13	23	10	13.9
GBNC0003	87	101	14	13.1
GBNC0003	107	127	20	17.1
GBNC0003	135	143	8	14.4
GBNC0004	9	33	24	13.2
GBNC0004	53	61	8	11.4
GBNC0005	14	20	6	10.7
GBNC0005	34	42	8	12.9
GBNC0005	109	117	8	12.9
GBNC0005	139	147	8	10.8
GBNC0006	16	24	8	11.5
GBNC0006	36	60	24	12.2
GBNC0006	80	88	8	12.3
GBNC0006	102	108	6	14.0
GBNC0006	119	147	28	11.8
GBNC0009	102	108	6	13.5
GBNC0009	120	126	6	13.5
GBNC0010	44	50	6	11.3
GBNC0010	76	82	6	10.9
GBNC0010	110	116	6	10.3
GBNC0010	130	138	8	12.5
GBNC0011	16	34	18	13.5
GBNC0011	66	78	12	12.9
GBNC0014	17	23	6	11.8
GBNC0014	76	84	8	10.4
GBNC0014	123	131	8	11.4
GBNC0015	113	121	8	12.3
GBNC0016	63	81	18	11.0

Weighted Average Grade

12.6



### **Appendix 2**

Weighed average vanadium grades, at a 0.05%V cutoff grade, the obtained to date from the Nicanda Hill prospect during the 2014 drilling program.

Hole_ID	From (m)	To (m)	nterval (m)	V (ppm)	V (%)	V2O5 %
GBNC0001	5	15	10	986	0.10	0.17
GBNC0001	30	40	10	1,172	0.12	0.21
GBNC0001	50	60	10	917	0.09	0.16
GBNC0002	9	21	12	1,361	0.14	0.24
GBNC0002	49	73	24	1,218	0.12	0.21
GBNC0002	87	101	14	990	0.10	0.17
GBNC0003	3	23	20	1,932	0.19	0.34
GBNC0003	67	145	78	1,576	0.16	0.28
GBNC0004	3	43	40	1,489	0.15	0.26
GBNC0004	47	93	46	1,030	0.10	0.18
GBNC0005	2.00	30	28	1,162	0.12	0.20
GBNC0005	71	91	20	1,118	0.11	0.20
GBNC0005	97	131	34	1,316	0.13	0.23
GBNC0005	137	147	10	1,408	0.14	0.25
GBNC0005	151	159	8	1,016	0.10	0.18
GBNC0005	163	169	6	1,170	0.12	0.20
GBNC0005	173	195	22	887	0.09	0.16
GBNC0006	10	24	14	1,138	0.11	0.20
GBNC0006	28	108	80	1,347	0.13	0.24
GBNC0006	119	149	30	1,603	0.16	0.28
GBNC0009	92	106	14	1,958	0.20	0.34
GBNC0009	92	150	58	1,456	0.15	0.25
GBNC0010	38	58	20	1,351	0.14	0.24
GBNC0010	66	148	82	1,214	0.12	0.21
GBNC0011	8	14	6	1,368	0.14	0.24
GBNC0011	16	78	62	1,565	0.16	0.27

Weighted Average Grade

0.23

### 4 August 2014

### **Appendix 3**

Balama North Project (Licence 5966 & 5365) Operated under Agreement between Triton Minerals and Grafex Lda. Information pertaining to drill data.

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	The Nicanda Hill prospect is located on the Balama North Project. The new drill results included in this report were obtained from Reverse Circulation (RC) and Diamond drilling. The nominal hole spacing of the current program is 100m x 400m. Diamond drill holes will be interspersed within the planned drill grid to provide qualitative information on structure and physical properties of the mineralization. Holes were drilled -60 degrees towards UTM south east to optimalintersect the mineralised zones.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drillhole locations were picked up by differential GPS (with nominal error of +- 0.5 metres) and reported using the World Geodetic System (1984 Spheroid and Datum; Zone 37 South). Downhole surveys of the RC and Diamond holes were measured using a Reflex single shot downhole survey tool. The collar surveys were validated with the use of a compass and inclinometer.  RC samples have been collected using a riffle splitter to obtain a 1/8th sample, which is split and combined to produce 2m composite samples. Efforts are taken to keep the RC drill sample material dry during drilling to avoid any bias. Wet samples are dried before riffle splitting and recorded to monitored results for bias.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Reverse circulation drilling was used to obtain 1m samples collected in a large bag and passed through a 3-tier riffle splitter to generate 1/8th samples (approximately 3kg) contained in a labelled calico bag and the residual 7/8th is retained at the drill site in the large bag. Where wet samples are encountered, the 3kg sample is allowed to dry before passing through the second stage (50:50) riffle splitter described below. The 3kg RC samples are split using a 50:50 splitter with one half combined with the half split of the next consecutive 1m sample to produce a 2m composite sample. This sample will be pulverised (total prep) by the lab to produce a sub sample for assaying. In addition, select RC samples will be submitted for multi-element analysis (55 elements) by sodium peroxide fusion with an ICP-AES finish. The diamond drill core samples are prepared as quarter core using diamond impregnated blade core saw. Samples genera are defined on the basis of geological contacts and range in drill hole intersections of 1.5 to 3m, with most approximately 2m.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is	The reverse circulation drill rig uses a 5.5 inch size hammer. Hole depths range up to a maximum depth of 222m (rig capability limit).  The diamond drill holes are drilled with a PQ core size collar (typically around 30m deep) and HQ3 (61.1mm diameter) core size to the end of hole. Core is oriented using the Reflex ACTI

tool.

oriented and if so, by what method, etc).



Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	The condition and a qualitative estimate of RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. A hard copy and digital copy of the sampling log is maintained for data verification.  Generally drill core recovery is above 95% below the base of oxidation. Core recovery is measured and compared directly with drill depths to determine sample recoveries.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.  RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample is minimized through the use of additional high pressure air supply down hole. Wet samples are recorded as these generally have lower sample recovery.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Comparisons of RC and Diamond drill sample material on the neighbouring Cobra Plains deposit showed no statistically significant bias associated with the RC drill technique. Extensive diamond drilling will be carried out as part of this program to confirm the QAQC paramters of the sample material. Similar statitistical assessments of the sample result bias will be undertaken for the current drill program.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Geological logging is carried out on holes for the full mineral assemblage that can be identified in hand specimen, in addition to texture, structure and estimates of graphite flake content and size.  Geotechnical logging is carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.  The mineralogy, textures and structures are recorded by the geologist into a digital data file at the drill site, which are regularly submitted to the Perth office for compilation and validation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of RC and Diamond drill holes includes recording lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RC Chip trays and diamond core trays are photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative.
	The total length and percentage of the relevant intersections logged	All drillholes are logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core (HQ3) will be cut into quarter core onsite using a diamond impregnated blade on a brick saw. Quarter core samples generally 2 metres or less in core length will be submitted to the lab labelled with a single sample name. Each approximately 2m sample will be crushed and a 300g split will be taken. For pulverisation. Samples are generally defined according to geological unit boundaries.  A batch of duplicate samples to sampled quartered core will be submitted to the same lab to investigate if any statistical bias is associated with the quarter compared to half core. The results of this study will be used to determine the appropriate sample methodology for future drill holes.



Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are collected on the rig using two riffle splitters. The majority of samples are dry. Two metre composite samples are generated by taking the 1m samples from the drill cyclone into a large bag and passing this material through a 3-tier riffle splitter to generate 1/8th samples (approximately 3kg) contained in a labelled calico bag and the residual 7/8th is retained at the drill site in the large bag. The 3kg RC samples will be split using a 50:50 splitter to and one half is to be combined with the half split of the consecutive 1m sample, producing a 2m composite sample. were generated for drilled intersections with visible graphite (>0.5% graphite). Where wet samples are encountered, the 3kg sample produced from the 1/8th splitter is left to dry before passing through the 50:50 splitter. The typical composite sample size is 3 to 4kg.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of the diamond core samples follows industry best practice in sample preparation involving oven drying (105°C), coarse crushing of the diamond core sample down to $^2$ mm, split (500g) and pulverizing to a grind size of 85% passing 75 micron. The sample preparation for RC samples is identical, without the coarse crush stage.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of two certified reference material assay standards, along with certified blanks, and insertion of field duplicates.  Certified standards are inserted at a rate of 1 in 25 (DD, RC and rock chip samples), duplicates were inserted at a rate of 1 in 20 and blanks are inserted at a rate of 1 in 50. QAQC samples are submitted with the rock chip samples.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Field duplicates are taken on 2m composites for RC, using a riffle splitter. Field duplicates are taken as quarter core splits for diamond core.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The drill sample sizes are considered to be appropriate to correctly represent mineralisation at the Balama North project based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The analytical techniques to be used to analyse all samples for Graphitic Carbon, Total Sulphur, and Total Carbon on a Leco Combustion Infrared Detection instrument. Detection limits for these analyses are considered appropriate for the reported assay grades.  In addition, selected drill samples will be analysed for multielement abundances using a fused disc digested in a four acid digest with ICP/OES or ICP/MS finish The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine any element concentrations.



Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	The RC and diamond core samples are submitted to the lab with blind certified standards (4 per 100 samples), blanks (2 per 100 samples) and field duplicates (5 per 100 samples). These QAQC samples represent 11% of the unknown samples analysed.  Twinned RC and diamond holes provided a means of evaluating any bias associated with sampling and drill technique. From the Cobra Plains drilling, field duplicate datasets showed strong correlation coefficients (0.92 for the diamond samples and 0.98 for RC samples), indicating good repeatability of grades between paired samples.  Sample preparation checks for fineness will be carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, and repeats as part of their in house procedures. Repeat analysis for samples reveals that precision of samples is within acceptable limits. A selection of the 1/8th riffle split samples will be submitted for umpire assays to SGS and an independent laboratory as independent checks of the assay results. Umpire laboratory campaigns using other laboratories is yet to be undertaken.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Carl Young of Model Earth Geological Global Services, a consultant for Triton, has visually verified the geological observations of most of the reported RC and Diamond drill holes. The geological of all drill chips and core is undertaken by by trained geological staff on site.
_	The use of twinned holes.	Three RC holes were twinned with diamond holes at the neighbouring Cobra Plains deposit to investigate sample bias related to the RC drill and sampling methods. The mineralisation zones within the holes show a reasonable correlation. Though the grade graphs suggest that the diamond holes are reporting higher graphitic carbon grades than the RC holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sample information is recorded at the time of sampling in electronic and hard copy form. Assay data is received from SGS in electronic form and compiled into the Company's digital database. Secured electronic print files have been provided to the Company for verification purposes.
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Collar locations for all GNBC and GBND holes were surveyed with a differential GPS.  The drillholes with the prefix TMB (drilled in 2013) were surveyed by hand-held GPS (nominal error of 5 metres). Drill holes were oriented at the collar using sighting pegs installed with the use of a magnetic compass and GPS. The dip of all RC holes is recorded for the collar only and no downhole surveys were taken.  The dip and azimuth of all DD holes is measured by the drll company using a Reflex singleshot downhole survey tool. Readings were taken at the completion of the hole at an interval spacing of 30 m on the diamond holes, and at the collar and end of hole on the RC holes. Stated accuracy of the tool is is +-1°.  Downhole survey measurements considered to be poor quality are coded as 'Priority 2' and are e excluded from the drill location calcuations.
	Specification of the grid system used.	The grid system for Balama North Project area is World Geodetic System (1984 Spheroid and Datum; Zone 37 South).



Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	Topographic surface for drill section is based on the differential GPS coordinates for the drill holes.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The nominal drillhole spacing is 100 m on drill lines spaced 400m apart. The drill lines have a bearing of $120^{\circ}$ (UTM grid northeast).
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The current data spacing and distribution is insufficient for the purpose of estimating a mineral resources for Nicanda Hill prospect. On completion of the current drill program and the receipt of all necessary data, the Company will undertake an estimation of the resource for the Nicanda Hill prospect.
	Whether sample compositing has been applied.	Samples have been composited to a maximum of two metres for RC samples. Most diamond core samples are taken as approximately 2m lengths of quarter core, with few samples of upto 3m in length of core for zones of low graphite. Diamond core sample breaks corresponding to geological boundaries.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The deposit is drilled towards the south east (magnetic grid) at approximately -60° to intersect the mineralised zones approximately orthogonal to the interpreted dip and strike of the geological units. Several characteristic geological units have been delineated in several drill holes giving a higher degree of confidence in the attitude and orientation of the graphite mineralisation. Near continuous sampling of all geological units bearing graphite is routinely undertaken.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Local increased graphite abundances are observed proximal to small-scale folding and thin tonalite veins. The orientation of these folds and veins is generally parallel to the attitude of the graphitic schist and mineralisation. Thus, the current drilling is not expected to produce any biased samples.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to SGS in South Africa. Any visible signs of tampering of the samples are reported by the lab. A chain of custody has been maintained for the shipment of the samples to South Africa.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A QAQC review of the sampling data from the drill holes at Cobra Plains was carried out by Optiro as part of the resource estimate for the Cobra Plains deposit. This deposit is located to the southeast of Nicanda Hill. The Cobra Plains database was considered by Optiro to be of sufficient quality to carry out that resource estimation. No reviews or audits of sampling techniques were undertaken by Optiro or any other external consultant.  The QAQC samples inserted with the reported RC chip samples returned values within the expected value ranges. On this basis, the reported drill assay results are considered representative and suitable for assessing the graphite grades of the intersected graphite mineralisation.





### 4 August 2014

### JORC Table 1 - Section 2 Reporting Of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Cobra Plains Deposit and the Nicanda Hill Prospect are located wholly within Exploration Licences EL5365 and EL5966 respectively within the Cabo Delgado Province of Mozambique. Both licences are held by Grafex Limitada (Grafex), a Mozambican registered company. Triton Minerals entered into a Joint Venture (JV) agreement in December 2012 with Grafex to earn up to an 80% interest in Grafex's portfolio of graphite projects. In late 2013 Triton increased their holding in the projects to 60% by taking a direct equity interest in Grafex. EL5365 is valid until 19/06/2018.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous systematic exploration has been undertaken at the Cobra Plains or the Nicanda Hill Prospects of the Balama North Project. The Company has acquired the data from an airborne electromagnetic survey that covers Licences 5966 and 5365. This data has been reprocessed and interpreted with some results included in this release. Small scale exploratory pits dug for ruby and/or graphite exploration have been identified. Data or reports disclosing the results of this work have not been located.
Geology	Deposit type, geological setting and style of mineralisation.	The Cobra Plains graphite deposit is hosted within Neoproterozoic rocks of the Xixano Complex in north-eastern Mozambique. The Xixano complex is composed dominantly of mafic to intermediate orthogneiss with intercalations of paragneiss, meta-arkose, quartzite, tremolite-rich marble and graphitic schist. Graphite mineralisation is hosted within fine grained graphitic schists underlain and overlain by felsic gneiss rock types. Mineralisation occurs as series of multiple stacked tabular northeast-southwest striking lodes moderately dipping to the northwest. Graphite mineralisation outcrops at surfaces and has been intersection at down hole depths of up to 428.55m below surface. Graphitic mineralisation is interpreted to be continuous between the Cobra Plains and the Nicanda Hill Prospects of the Balama North Deposit, based on the interpretation of the airborne electromagnetic survey data and drill results. Occurrences of vanadium mineralisation noted in the samples is thought to be associated with quartz muscovite $\pm$ roscoelite schists.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • dip and azimuth of the hole  • down hole length and interception depth  • hole length.	Refer to Appendix 4 below
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No top cut applied Minimum composite width = 6m Maximum internal dilution = 2m Weighted average grades calculated using the Surpac High Grade reporting function using the above parameters



Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	The significant weighted average graphite carbon (GrC) intersections reported were calculated as core-length weighted assay intercepts. The intersection calculations were made applying a maximum internal dilution of 2m for material below the GrC cutoff grade and a minimum composite width of 2m. Significant intercepts are reported at cutoff grade of 10% GrC.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	V2O5 is calculated from V% using a factor of 1.786
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The graphite schists and tonalite gneiss units dip moderately northwest based on outcrop exposures and measured structure in the oriented diamond drill holes. All GNBC drill holes are inclined -60° to the southeast to intersect the mineralised zones approximately orthogonal to the interpreted dip and strike of the geological boundaries. The reported intersections are considered to be near to true intercept widths.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figure 1 to 7 in the body of the text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Assays for all drill holes except GBNC0003 and the upper part of GBNC005 are outstanding.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Selected core samples from all diamond drill holes are measured for bulk densities. This, and additional data from future drill holes will be used to estimate average densities for rock types. Multi element assaying was conducted on selected zones in the diamond drill holes TMBD0005 and TMBD006. Geotechnical logging is routinely carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database. Regional scale mapping has been carried out in the area to identify outcrop of graphitic material. This mapping is ongoing.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Further drill testing using reverse circulation and diamond drilling is underway on the Nicanda Hill prospect to determine the grade continuity and width of the graphitic units.  Exploration activities resumed in April 2014.



## **Appendix 4**

Drill holes information GBNC0001 to GBNC00036, GBND0001 to GBND0013 and TMBD0005 and TMBD0006.

Hole_ID	Drill Type	North	East	RL	Total Depth (m)	Dip	Azimuth
GBNC0001	RC	8542823.7	477881.9	522.6	72.0	-60	150
GBNC0002	RC	8542701.2	477693.8	513.8	114.0	-60	150
GBNC0003	RC	8542972.8	477628.1	506.5	153.0	-60	150
GBNC0004	RC	8543151.2	477719.2	505.9	124.0	-60	150
GBNC0005	RC	8543251.1	477547.6	496.5	222.0	-60	150
GBNC0006	RC	8543298.3	477460.4	493.9	150.0	-60	150
GBNC0007	RC	8543353.8	477367.4	490.9	108.0	-60	150
GBNC0008	RC	8542656.6	477784.2	517.3	84.0	-60	150
GBNC0009	RC	8542800.8	477518.0	504.7	150.0	-60	134
GBNC0010	RC/DD	8542853.6	477431.1	501.8	290.7	-60	150
GBNC0011	RC	8542902.2	477345.8	498.0	118.0	-60	150
GBNC0012	RC	8542957.0	477259.1	496.6	90.0	-60	150
GBNC0013	RC	8543077.4	477446.6	498.8	150.0	-60	120
GBNC0014	RC	8543124.7	477358.3	495.4	150.0	-60	120
GBNC0015	RC	8543183.1	477274.0	492.4	150.0	-60	120
GBNC0016	RC	8543413.3	477289.7	489.0	150.0	-60	120
GBNC0017	RC	8543000.5	477980.2	535.1	125.0	-60	120
GBNC0018	RC	8542498.7	477625.1	518.5	90.0	-60	120
GBNC0019	RC	8542361.2	477490.3	518.0	100.0	-60	120
GBNC0020	RC	8542511.2	477237.6	505.5	150.0	-60	120
GBNC0021	RC	8542659.7	476971.8	496.3	150.0	-60	120
GBNC0022	RC	8542559.6	477146.7	502.3	150.0	-60	120
GBNC0023	RC	8542608.4	477061.4	498.0	108.0	-60	120
GBNC0024	RC	8542043.9	477249.3	521.6	82.0	-60	120
GBNC0025	RC	8542137.7	477076.3	510.4	84.0	-60	120
GBNC0026	RC	8543571.9	477788.1	495.0	150.0	-60	120
GBNC0027	RC	8543624.5	477702.0	489.1	114.0	-60	120
GBNC0028	RC	8543893.9	478041.0	490.6	150.0	-60	120
GBNC0029	RC	8543794.4	478207.1	499.5	150.0	-60	120
GBNC0030	RC	8543940.7	477950.6	486.6	150.0	-60	120
GBNC0031	RC	8543692.6	478383.4	506.8	150.0	-60	120
GBNC0032	RC	8544610.3	479199.2	499.0	102.0	-60	120
GBNC0033	RC	8544658.2	479111.5	493.7	150.0	-60	120
GBNC0034	RC	8544761.2	478935.9	479.1	186.0	-60	120
GBNC0035	RC	collar survey pending			200.0	-60	120
GBNC0036	RC	collar survey pending			150.0	-60	120
GBND0001	DD	8543201.0	477632.0	501.2	372.7	-60	120
GBND0002	DD	8542753.5	477608.3	508.8	184.8	-60	120
GBND0003	DD	8542680.7	477536.3	515.0	155.6	-60	120
GBND0004	DD	8542631.7	477620.9	512.9	161.7	-60	120
GBND0005	DD	8543003.1	477170.5	493.9	428.6	-60	120
GBND0006	DD	8543027.6	477533.9	501.6	242.5	-60	120
GBND0007	DD	8542583.4	477708.9	518.9	113.4	-60	120



GBND0008	DD	8542559.2	477550.4	512.6	134.5	-60	120
GBND0009	DD	8542606.2	477469.4	508.5	200.4	-60	120
GBND0010	DD	8542457.7	477319.2	509.6	185.5	-60	120
GBND0011	DD	collar survey pending			152.5	-60	120
GBND0012	DD	collar survey pending			152.6	-60	120
GBND0013	DD	collar survey pending			220	-60	120
TMBD0005	DD	8543043.0	477889.0	552.0	176.5	-55	136
TMBD0006	DD	8543166.0	477787.0	542.0	185.6	-55	134