

UNIVERSITY OF GHANA

**RESOURCE ESTIMATION OF MANTRAIM CENTRAL GOLD
DEPOSIT, TEBEREBIE MINES, WESTERN REGION, GHANA**

BY

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**THIS DISSERTATION SUBMITTED TO THE UNIVERSITY OF GHANA,
LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE
AWARD OF MSc DEGREE IN MINERAL EXPLORATION**

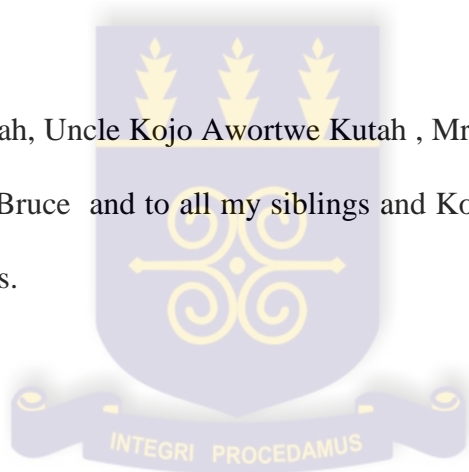
FEBRUARY 2014

DEDICATION

This dissertation is dedicated to God the eternal father for his grace and mercy and to my Lord Christ Jesus for his continual sustenance and support through the Holy Spirit. I am eternally grateful.

This dissertation is also dedicated to my family, my wife Rejoice and my children Caleb and Gideon.

To my mother Betty Ann Kutah, Uncle Kojo Awortwe Kutah , Mr and Mrs. Mainu, Mr and Mrs. Korankyie, Rev.Dr.and Mrs. Bruce and to all my siblings and Kojokrom SDA church members for their prayers and Sacrifices.



After these things I looked, and behold, a door opened in heaven. Revelation 4:1a

DECLARATION

I hereby declare that this thesis is the writer's individual and authentic work with the exception of reference to previous work that has been duly cited. This work has neither in whole or part been submitted to this or any other university for a degree.

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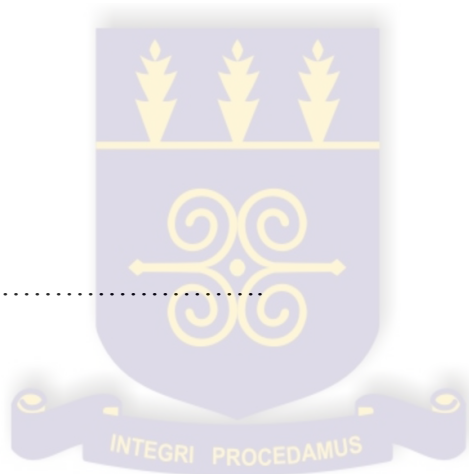
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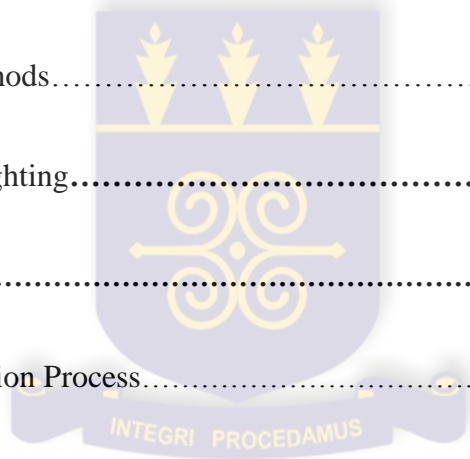
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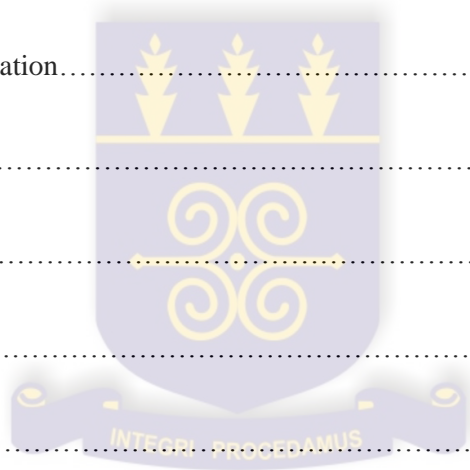
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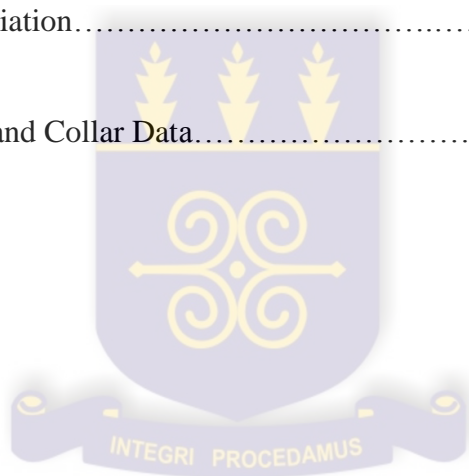


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ABSTRACT

Gold Fields Ghana Limited (GFGL) has several gold mining concessions situated in Ghana with granted Mining Leases of which the Teberebie Mine is an essential part and still in production. The Teberebie Mine which is found within the Takwaian district is located some 70 km north of the city of Takoradi, and 10 kilometres south-west of Tarkwa.

The Mantraim central project known as "Mantraim Central" is a part of the main Mantraim project which has been drilled extensively to grade control. It is the main target area of the project under study, the objective of which is to evaluate the ore resource of the central portion of the Mantraim project based on the 50 m x 50 m drill spacing to determine if the prospect has been underestimated or overestimated and the possibility of continuity of the ore deposit at deeper depth. The ore body strikes virtually north – south and dips 10 – 18⁰ E. Using the ordinary kriging methodology, a total of 486,119 gold ounces of indicated resource covering 15 million tonnes of oxide ore material at an average grade of 1.02 g/t Au was realised from the model. Ordinary kriging was used to define the mineral resources of the deposit due to the nature and the amount of data that were available for estimation in the project area. To verify this, first a kriging estimate of the local mean was set up, and then a simple kriging estimator using this kriged mean was performed.

The drilling of the prospects of the concession has provided a total of approximately 13,721 gold assay intervals emanating from 398 RC holes covering an area of 575 m of strike length and 400 m in width. The generated ore model resulting from the modelling of the mineralised grade intercepts within the central main zone constitutes an 11,297 assay samples from 390 drill holes. Gold mineralisation has been constrained by the development of wireframes modelled at a 0.3 g/t Au lower cut-off grade at an average dip of 10⁰ E. Variography was completed on the 1 m composite for the modelled grade shell.

Based on the findings, it is being recommended that the southern part of the model which was not covered by drilling data should be covered with 25 m x 25 m drilling to help establish further the model continuity. It is also being recommended that systematic deep holes be drilled over the property to ascertain the continuity or otherwise of the model.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Gold Fields Ghana Limited (GFGL) has several gold mining concessions situated in Ghana with granted Mining Leases of which the Teberebie Mine is an essential part and still in production. The Teberebie mine which is found within the Tarkwaian system is located in some 70 kilometres north of the city of Takoradi, and 10 kilometres south-west of Tarkwa (Akabzaa and Darimani, 2001). Figure 1.1

The Tarkwaian group within which the Teberebie mine is located forms a significant portion of the rock groups of the Ashanti Belt in southwest Ghana. The Ashanti Belt trends northeast. It is broadly a synclinal structure made up of Lower Proterozoic sediments and volcanics underlain by the metavolcanics and metasediments of the Birimian System (Acheampong, 2004). The contact between the Birimian and the Tarkwaian groups is commonly marked by zones of intense shearing. The belt is host to a number of significant shear hosted gold deposits including Prestea, Bogoso and Obuasi. The Tarkwaian rocks unconformably overlie the Birimian supergroup (Akabzaa, 2000). The Tarkwaian group is characterized by lower intensity metamorphism and the predominance of immature sedimentary units which from oldest to youngest are:



Figure 1.1: Location Map of Southern Ghana showing Teberebe Gold Mine.
Source (http://wikipedia.org/wiki/file:ghanamine_locations)

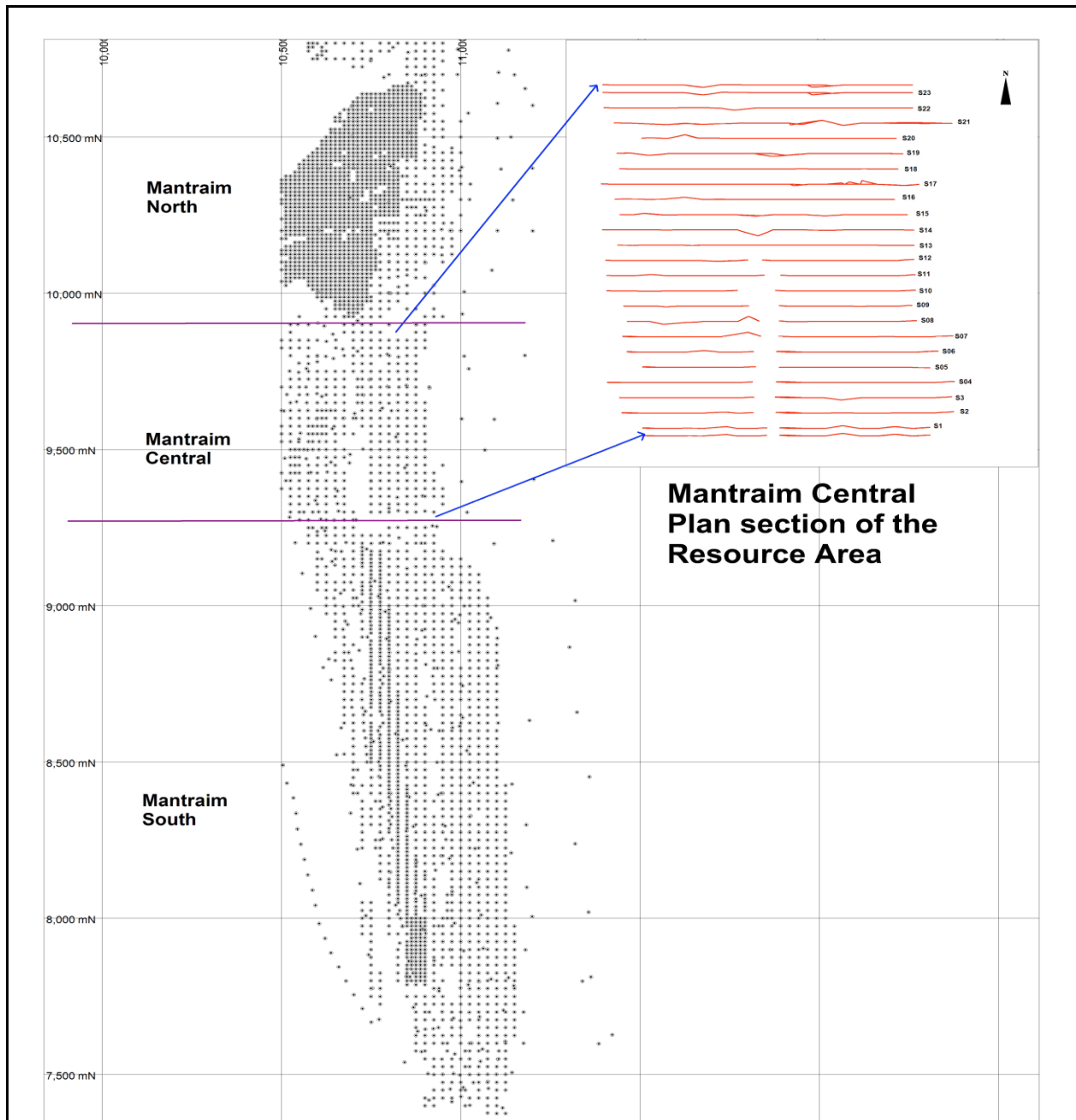


Figure 1.2: Mantraim project in plan, showing the north, central and south designations. (Map generated with Mapinfo professional software).

- Kawere Series (250 – 700 m) – poorly sorted, polymictic conglomerates and quartzites with no significant mineralization;
- Banket Series – well sorted conglomerates and quartzites with clasts generally considered to be Birimian in origin and containing significant gold mineralization, hosting the Tarkwa orebody. In the Pepe area the Banket Series is approximately 32 m thick and at Kotraverchy up to 270 m thick;
- Tarkwa Phyllite Series (120 – 140 m) – fine grained chloritic siltstones, mudstones and schists with no significant mineralization; and
- Huni Series (1370 m) – fine grained massive sandstones with no significant mineralization (Goldfields Ghana Limited, 2003).

Teberebie mine was owned and operated by Goldfields Ghana Ltd (GFGL) which had majority share of 71.1%. On 1st July,2004 there was a proposed transaction between GFGL and IAMGOLD Corporation which meant that the acquisition by IAMGOLD of the acquired interest from Goldfields and its affiliates and the issue by IAMGOLD of the consideration shares to Goldfields and its affiliates as consideration thereof resulting in the acquisition by IAMGOLD of all of the interest of Goldfields in certain of its subsidiaries which collectively hold all of the mining assets of Goldfields located outside of Southern African Development Community (Goldfields Ghana Limited and IAMGold Corporation,2003).

As a result of this proposed transaction between the two companies, prepared under the Guidelines of National Instrument 43-101 and accompanying documents 43-101. F1 and 43-101. CP by SRK consulting, resource and ore reserve estimations were carried out in GFGL Tarkwa concessions of which the Teberebie mine is a part.

The Teberebie mine has a prospect known as Mantriam project which has been divided into the Northern, Central and Southern prospect for the purpose of this study. Figure 1.2

Mineral resource estimations of the Teberebie mine with reference to the Mantriam prospect is to be carried out in this study to evaluate the prospect.

The resource estimation of the Teberebie mine is therefore a case study to evaluate the central zone of the Mantriam project. This is meant to re-evaluate the prospect to verify whether it has been underestimated or overestimated. Recommendations are made regarding the depth continuity of the deposit.

1.2 PROJECT SETTINGS

1.2.1 Location and Accessibility

Teberebie Mine is located in the Wassa West District in the Western Region of Ghana. The Wassa West district lies between latitudes 4° N and $5^{\circ} 40'$ N and longitudes $1^{\circ} 45'$ W and $2^{\circ} 10'$ W. It covers a total area of 2.578 km². (Akabzaa and Darimani, 2001). It is bordered to the north by the Wassa Amenfi District, to the south by the Mpohor-Wassa East and Ahanta West, to the east by the Mpohor-Wassa East and to the west by the Nzema East District (Figure 1.3). Generally accessibility to the Mines within the Wassa West district is limited by inadequate road networks (Agbesinyale, 2003) as shown in Figure 1.4.

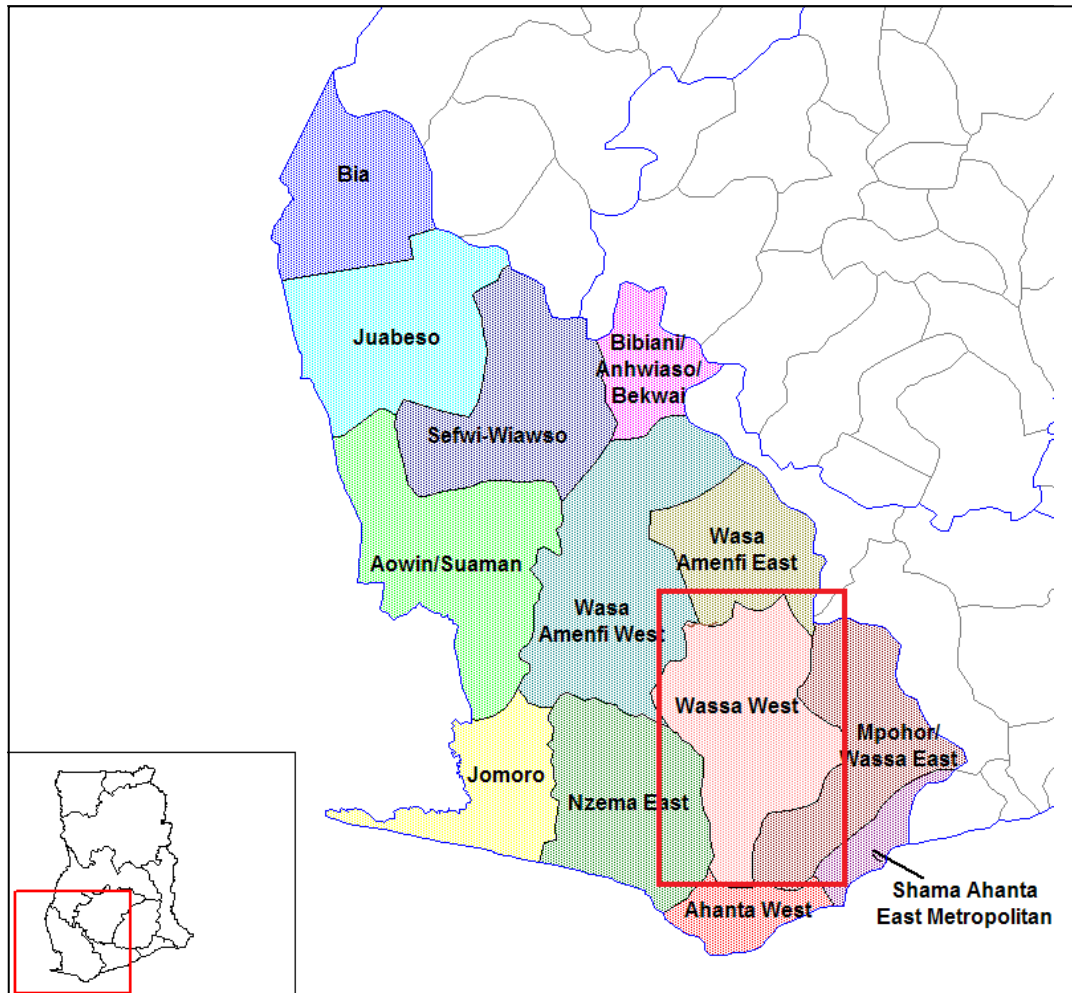


Figure 1.3: Wassa West District in regional context Source: (Ministry of Interior, 2006)

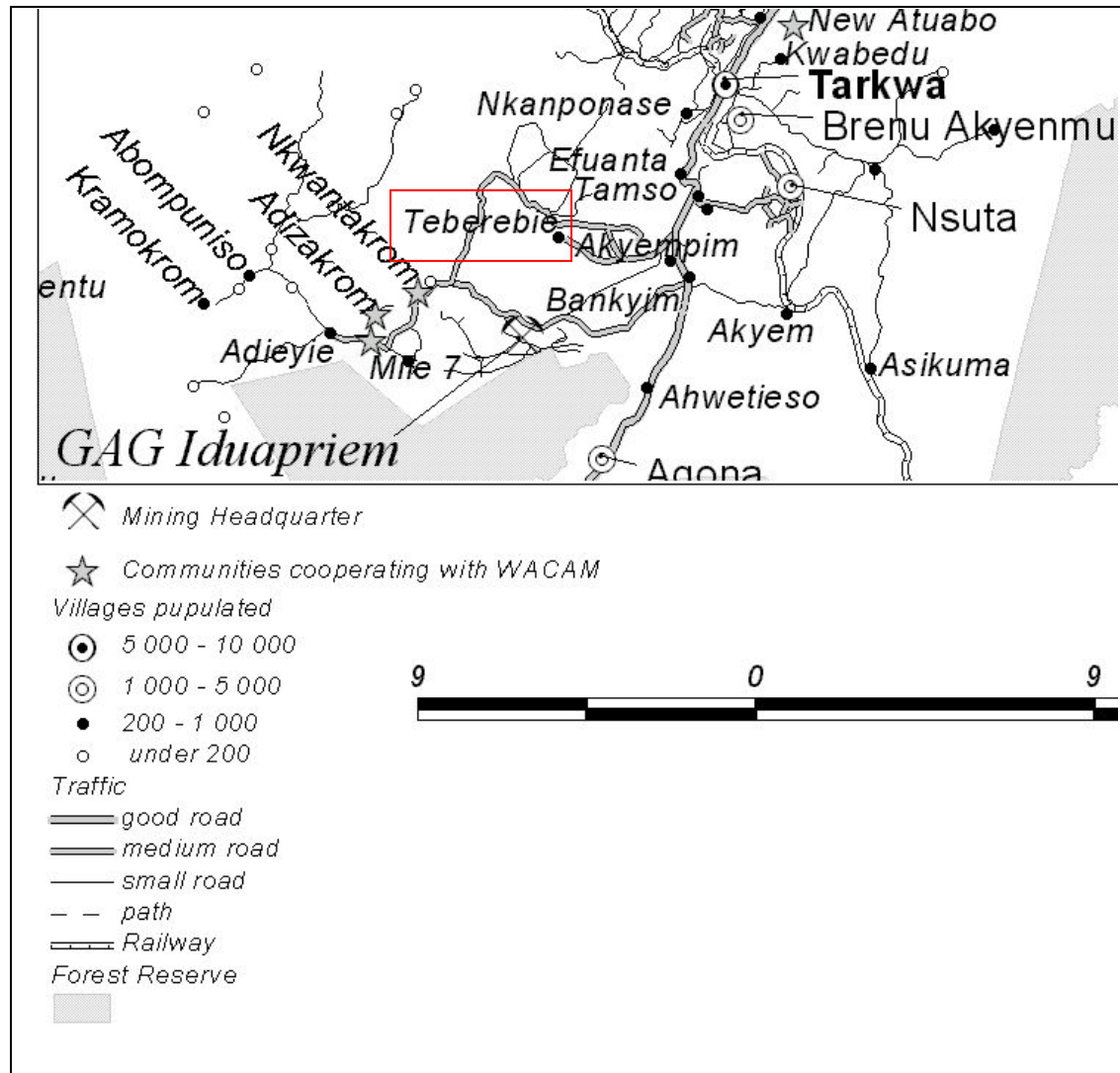


Figure 1.4: Location and Road Accessibility of Iduapriem/Teberebie Mine
Source: (Quinlivan, 2002).

1.2.2 Historic Mining Performance

Attributable gold production for the eight (8) months in which Iduapriem was part of AngloGold Ashanti was 125,000 ounces from both the CIP and heap-leach processing facilities. Following the expansion of the CIP plant, which involved the installation of an additional mill and an upgrade of downstream processing circuits, throughput was affected by persistent mill and

crusher circuit engineering related problems throughout the year (Ghana Australian Goldfields, 2003).

Detailed historical mine records were not available at site and it was therefore not possible to undertake a detailed technical resource or reserve and production audit. However, based on various production reports and literature, historical production data has been reviewed and an approximate production by ownership period is presented. Based on historical gold production it is noted that production and by inference ore reserves from the main Teberebie mine, on a vertical basis, varies significantly with depth. This does not necessarily preclude significant opening up of the shear system and the chance of occurrence of prolific gold mineralisation particularly to the north.

Gold production by Iduapriem (80% equity) or Teberebie (90% equity) for the year 2002 was 185,199 ounces, compared to the previous year's 205,130 ounces. The cash operating costs increased to US\$232 per ounce from US\$214 per ounce in 2001 due to the lower gold production. The ore mined in 2002 was 4,393,000 tonnes at 1.66g/t which is a better result when compared with the previous year output of 4,852,000 tonnes at 1.58 g/t. The higher grade resulted from mining of the Teberebie ore blocks. Waste mined was 15,019,000 tonnes, compared to 13,839,000 tonnes in 2001. In 2009, production had however decreased to 190,000 ounces Au with an operating cost of US\$ 516 per ounce Au (Table 1.1). (Ghana Australian Goldfields , 2003).

Table 1.1 Historical Production from Tarkwa, the 2004 results are for the eight month from May to December only (Goldfields Ghana, 2003)

Year	Production	Grade	Cost per ounce
2001	205,130 ounces	1.58 g/t	US\$214
2002	185,199 ounces	1.66 g/t	US\$ 232
2003	243,533 ounces	1.75 g/t	US\$ 240
2004	147,000 ounces	1.72 g/t	US\$ 303
2005	205,000 ounces	1.71 g/t	US\$ 348
2006	196,000 ounces	1.74 g/t	US\$ 368
2007	185,000 ounces	1.85 g/t	US\$ 373
2008	200,000 ounces	1.76 g/t	US\$ 525
2009	190,000 ounces	1.72 g/t	US\$ 516

1.3 OBJECTIVE OF THE STUDY

The objective of this study is to evaluate the ore resource of the central portion of the Mantriam project to determine if the prospect has been underestimated or overestimated and the possibility of continuity of the ore deposit at deeper depth.

1.4 JUSTIFICATION

Gold mining in Ghana has long been the backbone of the country's economy. Gold mining is indispensable in the economic fortunes of Ghana. This is due to the many economic benefits that are derived from the extraction of the precious metal.

The 25 m x 25 m infilling of the Mantraim deposit will prove vital to the economic growth of the communities around and Ghana at large especially if an increase in grade and tonnage is realised in the end. This is so because it will tend to prolong the mine life of the project thereby creating more job opportunities. Moreover, when the mine life and production are increased Ghana as a country stand to benefit from taxations and royalties.

1.5 DESCRIPTION OF THE STUDY AREA

1.5.1 Topography of the study area

The topography of the area is generally hilly with several undulations. The area lies within the south western equatorial climate zone, where the seasons are primarily regulated by moist south-western winds from the South Atlantic Ocean and dry, laden northeast trade winds, which blow over the Sahara desert from the northern subtropical high pressure zone (Goldfields Ghana Ltd, 2004). The outcropping Banket Series in the mine area form prominent arcuate ridges extending southwards from Tarkwa, westwards through Iduapriem and northwards towards Teberebe as shown in Figure1.5

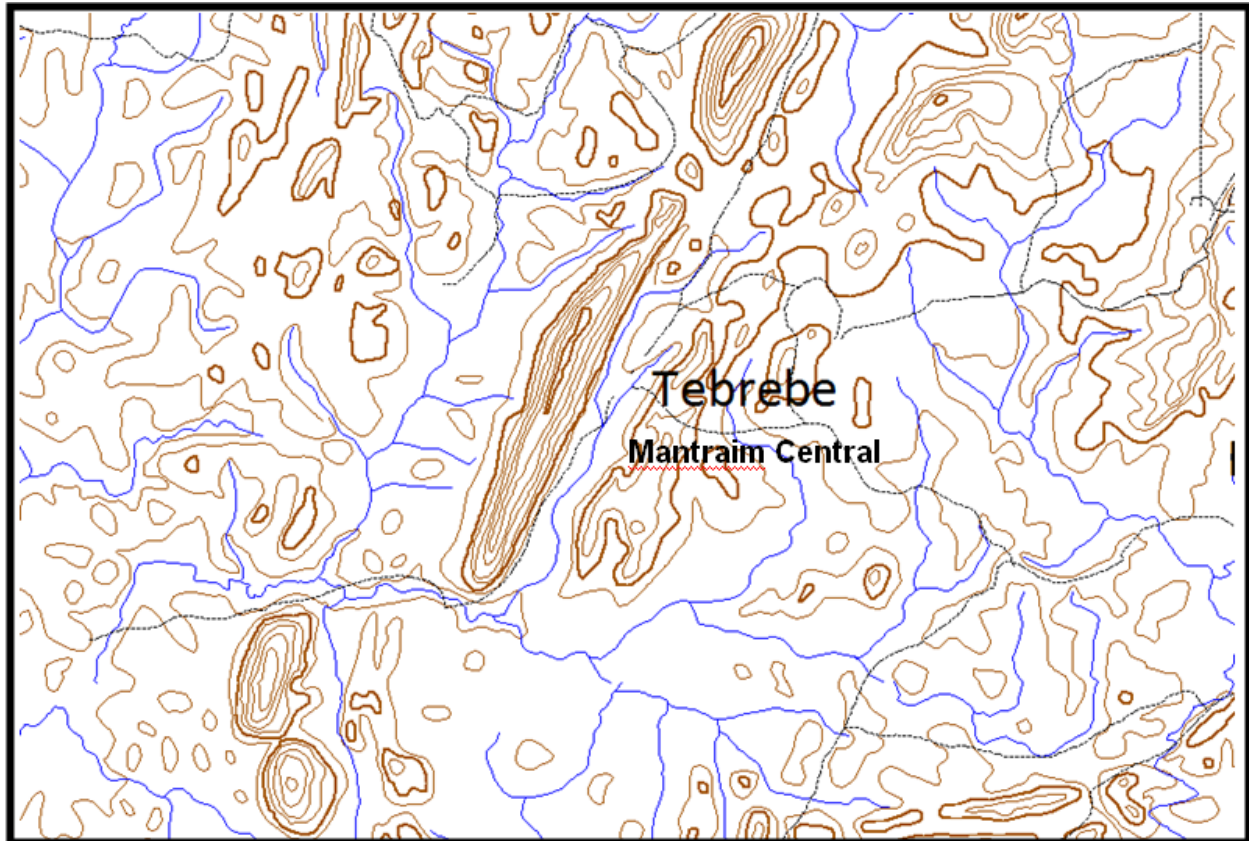


Figure 1.5 Map of mining area under GAG Iduapriem Source: (Quinlivan, 2002)

The topography of the Teberebie area is characterized by ragged ridges with peaks reaching a height in some areas 335 metres above mean sea level, interspersed by undulating valleys. Teberebie and its environs have evergreen mountain ranges which are rich in biodiversity. The gold is fine-grained, particulate and free milling. Mineralogical studies indicate that the grain size of native gold particles ranges between 2 and 500 microns (0.002 to 0.5mm) and averages 130 microns (Agbesinyale, 2003).

There has been a rapid reduction in the density of trees in areas affected by mining activities. Where the area has been mined out, the vegetation consists of ferns and other shrubs which grow. Unfortunately, these ridges are the main areas where gold is found, and they are targets for open pit mines (Akabzaa and Darimani 2001). The major rivers (Bediabewu, Drobo,

Angonabeng and Bonsa) and their tributaries facilitate mining activities in the area, particularly for *galamsey* operators, by providing the water required for the processing of gold ore.

The two main large scale mines in the study area are Teberebie Goldfields Limited (TGL) which has been operating since 1990 and Iduapriem Anglogold Ashanti Mines (IAAM) which has also been operating since 1992 (Akabzaa and Darimani, 2001) .

1.5.2 Local Geology of the Teberebie Area

The local geology is dominated by the Banket Series rocks of the Tarkwain group. The stratigraphy of the rock units is well established with auriferous reefs interbedded with barren immature quartzites. The units thicken to the west current flow parameters indicate a flow from the east and north-east (Aryee, 2003). Teberebie`s geological location is shown in figure 1.6

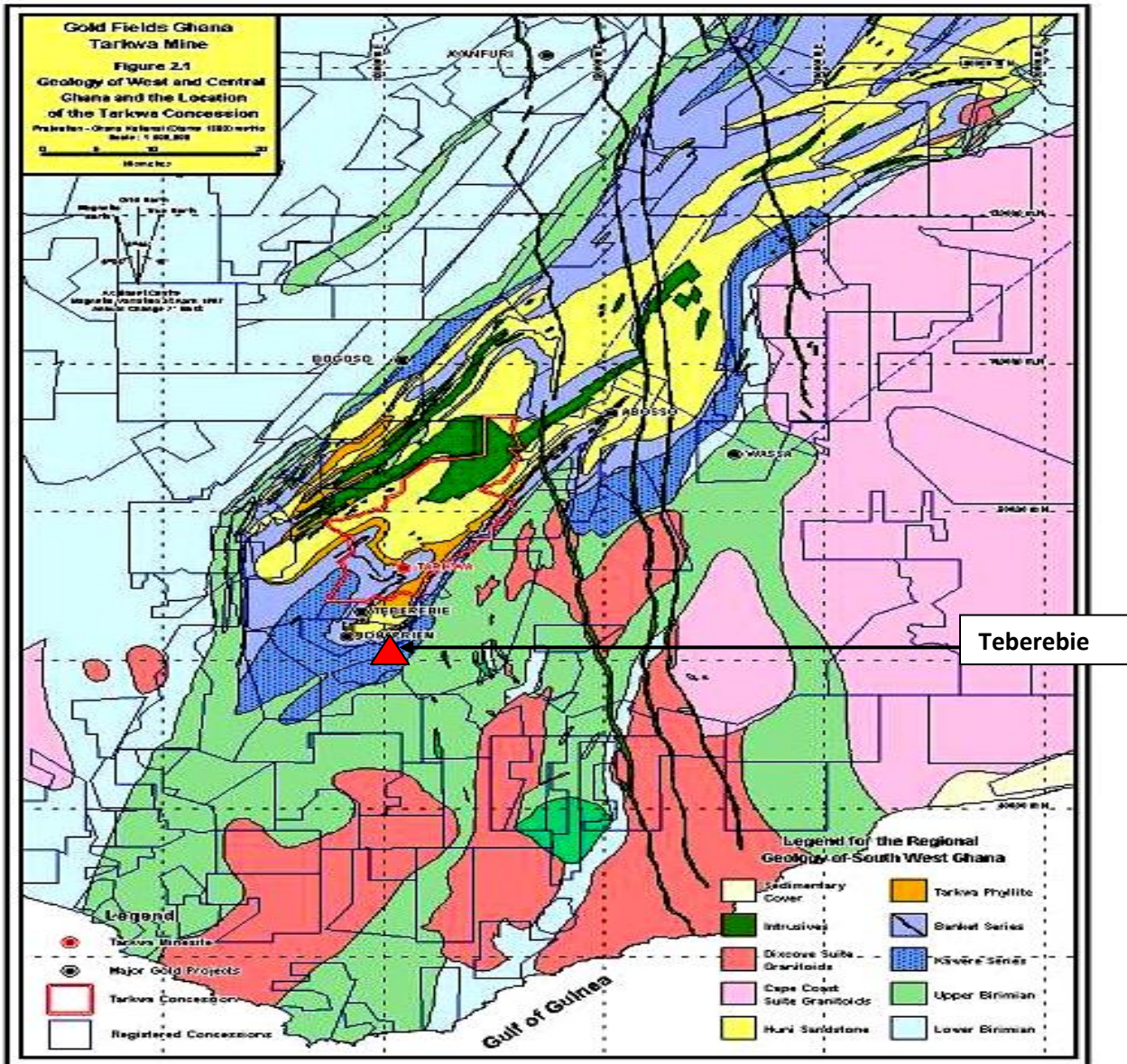


Figure 1.6 Regional Geology of Southwest Ghana and Location of Teberebie

Source: (Goldfields Ghana Limited,2004)

Sedimentological studies of the detailed stratigraphy within individual reef units have led to the recognition of both lateral and vertical facies variations. The modelling of these has resulted in the recognition of a cycle of events from initial channel formation and rapid downcutting of the central channel (basin downwarp time units T1 and T2) through a period of uplift and reworking (T3). Finally that period is followed by a period of meandering channel bars and flow reduction

leading to the development of low grade silty interbeds. This sequence has been recognised in each of the main reef units with the T3 sequence being as the principal episode of gold deposition and concentration Figure 1.6 (Agbesinyale, 2003).

1.5.3 Structure

Structurally, the Tarkwaian belt has been subject to moderate folding and at least five (5) episodes of deformation are thought to be represented at Tarkwa (Acheampong, 2004). Thrust faults occur between Pepe and Akontansi and between Akontansi Ridge and Kotraverchy. (Figure 1.7). The original deposition occurred in a listric basin environment with associated low to steep angle normal faulting. Subsequent compression and folding led to development of thrust faults and reversing of previous normal faults. The final stages involved further thrusting in a southwest direction. This has led to the individual deposits at Teberebie having significantly different structural controls and differing degrees of structural complexity. At Pepe, the orebody forms on a gentle anticline with limb dips from horizontal to a maximum of 35° west (Goldfields Ghana Ltd ,2003).

The area is cut by north-east trending normal faults but no significant fault losses are reported. At Akontansi East, the strata dip north-west at 18° and are cut by north-east trending normal and reverse faults with low angle thrusts occurring at the east and west margins. The area is also intruded by numerous dykes and sills and is considered to be structurally complex as cited in Aryee, (2003). Throughout Akontansi, numerous small scale structures occur which are only identified either during grade control or mining with reverse faulting leading to duplication of the reef adjacent to fault planes. At Kotraverchy, the north-east plunging anticline is cut obliquely by a number of shallow angle thrusts and cross cut by numerous strike slip faults. The Kotraverchy area is recognised as being structurally complex and as a result the grade control drill spacing

was to be reduced to 12.5 x 25 m in the next phases of grade control drilling (Ghana Australian Goldfields , 2003).

The geological model at Teberebie has been refined considerably since mining commenced and the large amount of grade control and mining data has allowed much more detail to be introduced to the model. This has, in turn, led to the development of the domaining models. There is still a considerable amount of small scale faulting which is only identified through grade control drilling(Gold Fields Ghana Limited and IAMGold Corporation , 2003).

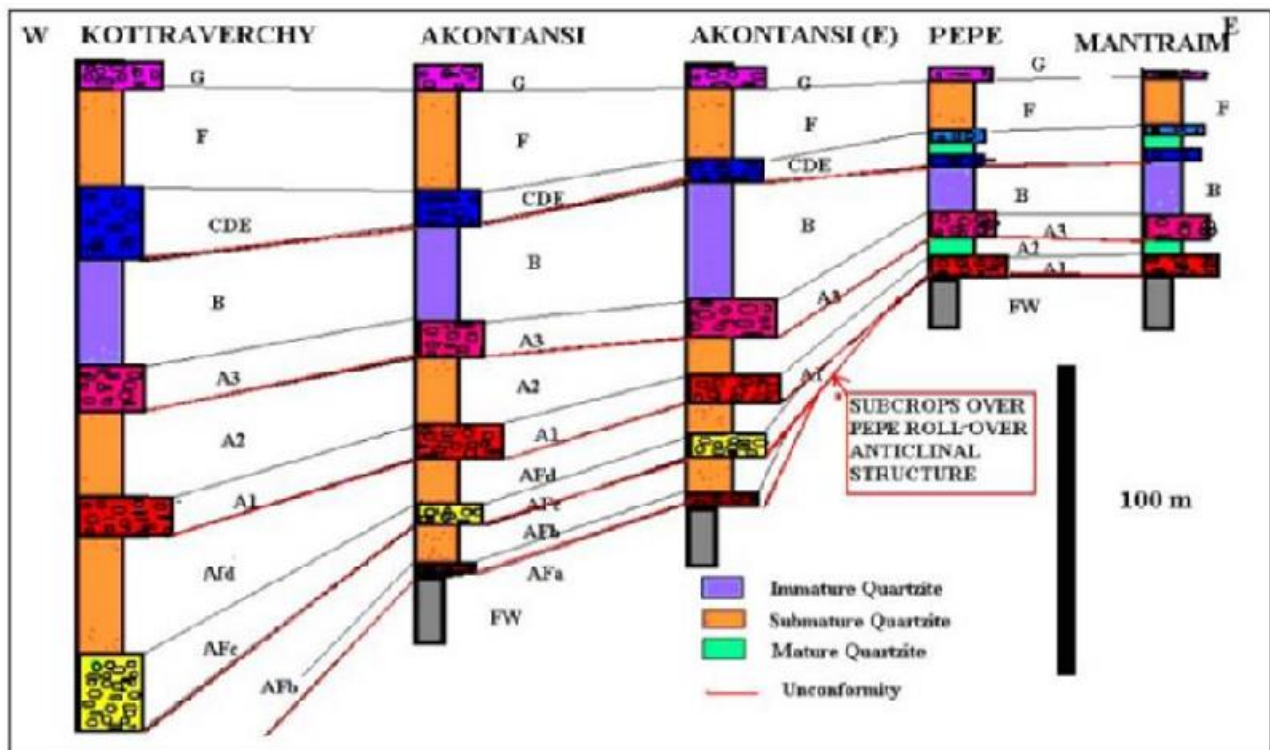


Figure 1.6: Structure of Takwain belt showing Mantriam other Deposits.
(Source Goldfields Ghana Limited, 2003)

1.5.4 Teberebie Mine Mineralisation

The rocks bodies forming the gold ore have been weakly metamorphosed and altered. They are carbonatised silicified, albitised and sericitised and mineralised in sulphides and gold Ankerite is the main carbonate mineral. Pyrite content increases towards the ore body both in footwall and

hangingwall, up to 2-3% occur in the central part of the ore body. Arsenopyrite is more clearly associated with the actual ore zone, and is rarely found outside it (Owusu Koranteng,2009). There is generally a good correlation between the presence of gold and the presence of arsenopyrite. The maximum arsenopyrite content is also around 2-3%. The host rock is graphitic / carbonaceous throughout, but the graphite content can increase substantially in the more intensely sheared zones, especially within and around stockwork mineralisation along the Footwall. The graphite has a preg-robbing effect (Ghana Australian Goldfields , 2003).

Gold mineralisation is closely associated with the sulphides, but photomicrographs indicate that gold occurs largely along the edges or along cracks within the sulphides and most of gold can therefore be leached after normal grinding. Gold grain size is generally well below 50 microns, but visible gold is not uncommon in the richer quartz veins. About 15% of the total gold reports to the coarse fraction in metal screen analyses. The majority of gold mineralisation is associated with the quartz veins and quartz stockworks, but the altered host rock contains also low quantities of gold, on average just over 0. 2 g/t (Goldfields, 2003).

CHAPTER TWO

LITERATURE REVIEW

2.1 HISTORY OF RESOURCE ESTIMATION

The use of geostatistics in evaluating mineral resources and ore reserves began in the early 1960s to mid-1970s when computers became available. In the 1980s and 1990s when computers became common, much work was carried out in the field of geostatistics. However, geostatistics is most often applied to relatively larger and more uniform deposits (Sinclair and Deraisme, 1974).

Since the start of the modern mining era there has been an increasing use of sample data to estimate the amount of material mined or to be mined. Early mining operations had little forward planning, and consequently little use was made of exploration or mining data to estimate resources or reserves, although there was extensive use of data for grade control and for monitoring of the mining operations. The early resource estimations which were in fact reserves arose out of this grade control function, where, for example, underground face and raise samples were used to delineate a mining block. It was only in the middle part of the 20th century that exploration drill holes started to be used to define a form of mineral inventory (Carras, 2001).

The earliest methods used were all variants of the polygonal estimator, and typically, dilution and recovery were built into the estimation process to define an Ore Reserve without first progressing through the resource stage. As the importance of planning and scheduling of an operation's mineral endowment became apparent, the use of all types of sample data to define Ore Reserves increased. However, there was little regulation of the reporting standards and these tended to vary widely (Coombes, 2008). The methods used to estimate reserves also developed,

and in the 1950s and 1960s there were a number of attempts to fit simple mathematical models (such as multiple linear regression) to the sample data and thus derive simple statistical parameters such as the mean and variance of the underlying population. In South Africa some success was achieved by fitting lognormal distributions to mine data (Krige, 1978), but this failed to translate well to Australian ore bodies.

With the advent of increasingly fast and reliable computers, mine planning packages, which incorporated resource and reserve estimation, were introduced from the late-1970's. These provided for the first time the ability to generate a model of the orebody comprising a large number of orthogonal, similarly-sized blocks (David, 1977). Accompanying this block modelling ability the packages generally offered a variety of resource estimation techniques, including polygons (more strictly a nearest-neighbour interpolator), inverse distance estimation, and simple or ordinary kriging. Although much work was carried out in developing mining geostatistics in the 1960s and 1970s in France and in North America, kriging was not routinely used as a resource estimation technique until the end of the 1970s. The method gained a somewhat tarnished reputation due to its poor application by inexperienced practitioners, and inverse distance estimation, along with the various varieties of polygonal estimation, established themselves as the methods of choice (David, 1977).

The mining software packages continued to develop in power and sophistication during the 1980s, and great advances were made in the visualisation and modelling of complex geological domains. It was during this time that the first resource estimates *sensu stricto* were generated. These were then modified by the mining design and other factors to yield best results.

Following its initial poor reputation, kriging techniques continued to be used increasingly, especially the non-linear approaches such as indicator kriging (Journel, 1983). However, a large

number of resources were still estimated using non-geostatistical techniques. This polarization continues to the present day, although some form of block model is now accepted as the norm in the majority of estimations.

As computers continue to grow in power and sophistication, a number of very computationally-intensive techniques such as conditional simulation have now become common.

2.2 IMPORTANCE OF MINERAL RESOURCE ESTIMATION

Mineral Resource Estimation comprises all the activities which together make it possible for accurate prediction of grade and tonnage of a mineral resource. A resource estimate is based on prediction of the physical characteristics of a mineral deposit through collection of data, analysis of the data, and modeling the size, shape, and grade of the deposit. Important physical characteristics of the ore body that must be predicted include

- (1) the size, shape, and continuity of ore zones,
- (2) the frequency distribution of mineral grade, and
- (3) the spatial variability of mineral grade.

These physical characteristics of the mineral deposit are never completely known, but are inferred from sample data. The application of geostatistics in the mining industry has been particularly helpful in various ways providing estimates that assist in decision making and helps monitor and maintain the profitable continuation or otherwise of a mining operation. Unlike the traditional estimation methods such as polygonal estimates, inverse distance weighting etc., modern geostatistics provides a measure of accuracy in the form of kriging variance (Glacken, and Snowden, 2001). By this approach, decision makers are informed as to what degree of error is present in a particular estimate.

Generally, ore is mined as blocks and geostatistics has the capacity to estimate the average grade and tonnage of each block based on nearby samples. Although most mining companies usually want block estimates of their variables instead of contour maps, geostatistics can be used to generate estimated contour map of a deposit (Armstrong, 1998).

Modern mineral resource evaluation is a computer based process involving but not limited to geologic surveys, systematic surveys on large grids, sampling on small grids, quality assurance and quality control checks, classical statistical evaluations of data-sets, geologic framework modeling, geologic block modeling, spatial statistical evaluations, interpolation of grades, model validation, classification, resource inventory calculations, model documentation and the model is delivered to mining engineers for pit optimization and economic evaluations (Journel and Huijbregts,1978).

The process of estimating mineral resources can only take place after the resource geologist is convinced of the soundness of the fundamentals underlying the estimation process. Thus the database of sampling, density, and other quality data for both estimation and geological interpretation must have integrity and robustness; the geological data must be sufficiently complete for the definition of a geological model; the geological model itself must have internal consistency, should explain the observed arrangement of lithological and mineralogical domains, and should represent the estimator's best knowledge of the genesis of the mineral deposit; and the geological model should support the distribution of mineralization seen in the sampling (Journel and Huijbregts,1978).

It is only at this stage that a resource model may be generated. The resource estimation process involves the definition of mineralization constraints or geological domains, the statistical and/or geostatistical analysis of the sample data, and the application of a suitable grade interpolation technique. The final stage of the estimation process will be to classify the resource according to

standards set by internationally accepted entities such as the Joint Ore Reserves Committee, (JORC Code), CIM Evaluation Committee (2010), South African Mineral Resource Committee (SAMREC), AUISIMM etc.

2.3 SYNOPSIS OF RESOURCE ESTIMATION TECHNIQUES

Resource estimation methods can be grouped under two main types. These are the manual methods and block modeling (which is generally computer based) methods. It should be noted that some of the manual estimation techniques can be implemented in computer based block modeling. In general, resource estimation techniques range in complexity, roughly proportional to the amount of computation involved in deriving the estimate.

2.3.1 Manual Methods

Manual methods are the simplest techniques and involve assigning to an ore body intersection its own clearly defined area of influence, defined in relation to the other intersections. Such techniques include polygonal (area-of influence, or nearest-neighbor) and sectional approaches (Glacken and Snowden, 2001).

2.3.1.1 Polygonal Method

Polygonal methods are very simple estimation methods (Figure 2.1). Polygons may be developed in the plane of mineralization, or may be projected onto a suitable horizontal or vertical plane with the corresponding geometric transformation. The most common versions of the polygonal approach are the nearest neighbor and the sectional area-of influence methods GlackenandSnowden (2001).

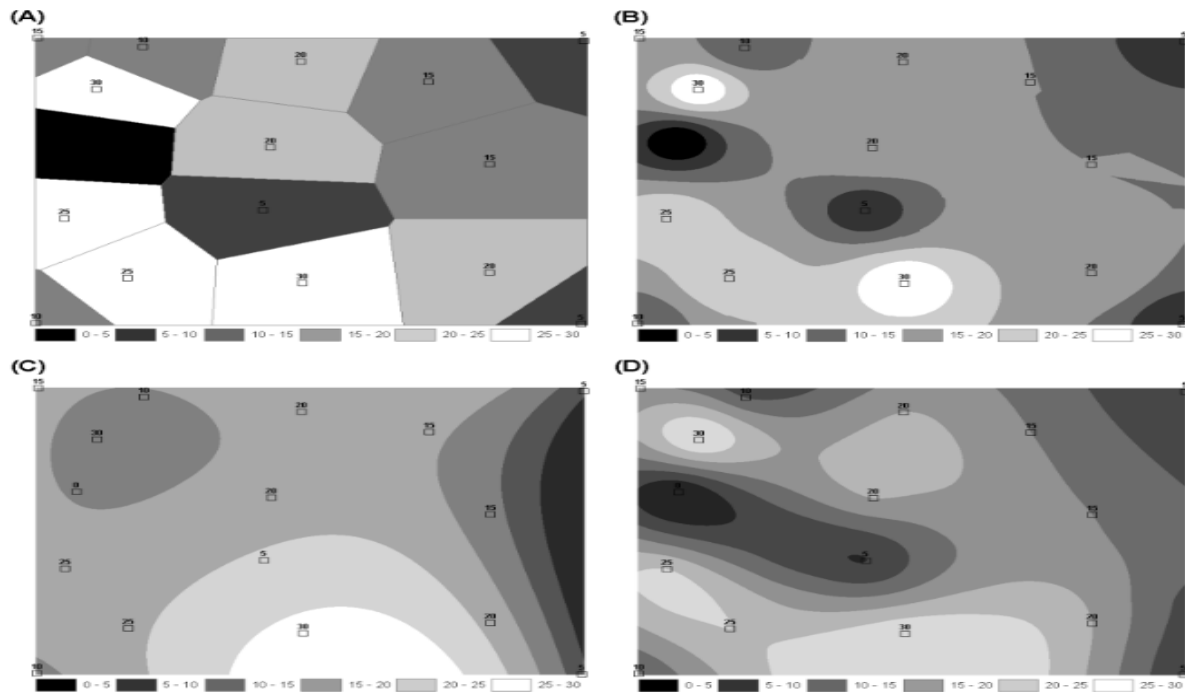


Figure 2.1: Nearest Neighbor Method (Glacken and Snowden, 2001)

As discussed by Isaaks and Srivastava (1989), nearest neighbor in its simple terms, the grade at a given location is the grade of the nearest sample grade. The procedure is to draw polygons of influences of each sample. These polygons are drawn using the perpendicular bisectors of adjacent samples (similar to Thiessen triangles). The estimated grade of the polygon is the grade of the central sample. This kind of estimates is strictly by assignment and there are no complexities in implementing it. Its advantages are simplicity and also as being the best declustered estimate, this makes it possible to use it as a check to other linear estimation methods. However, there are lots of disadvantages to using nearest neighbor estimates, notable among them are as follows;

Discontinuities between estimates (this makes mineralization spotty).

Only one sample is used per estimate and this makes it more variable and less reliable .

Estimates are too variable introducing conditional biasedness into the entire estimates.

It does not regard such geologic properties as nugget effect which means that for less variable commodities like iron ore the estimation process is similar to that of a high nuggety gold deposit.

Until recently this method was only achievable in 2D space.

2.3.1.2 Sectional Methods

The sectional method is achieved with polygons defined on sections (perpendicular to mineralization) extended orthogonally to the section plane halfway to the next section.

The procedure used to achieve resource estimates using sectional method are summarized in Figure 2.2, and briefly outlined in the steps that follow:(Glacken and Snowden, 2001)

Compute weighted average grade of each mineralized drill hole intersection and draw polygons to capture the intercepts;

Project mineralized intercepts mid-way towards adjacent drill intersections on the same vertical section;

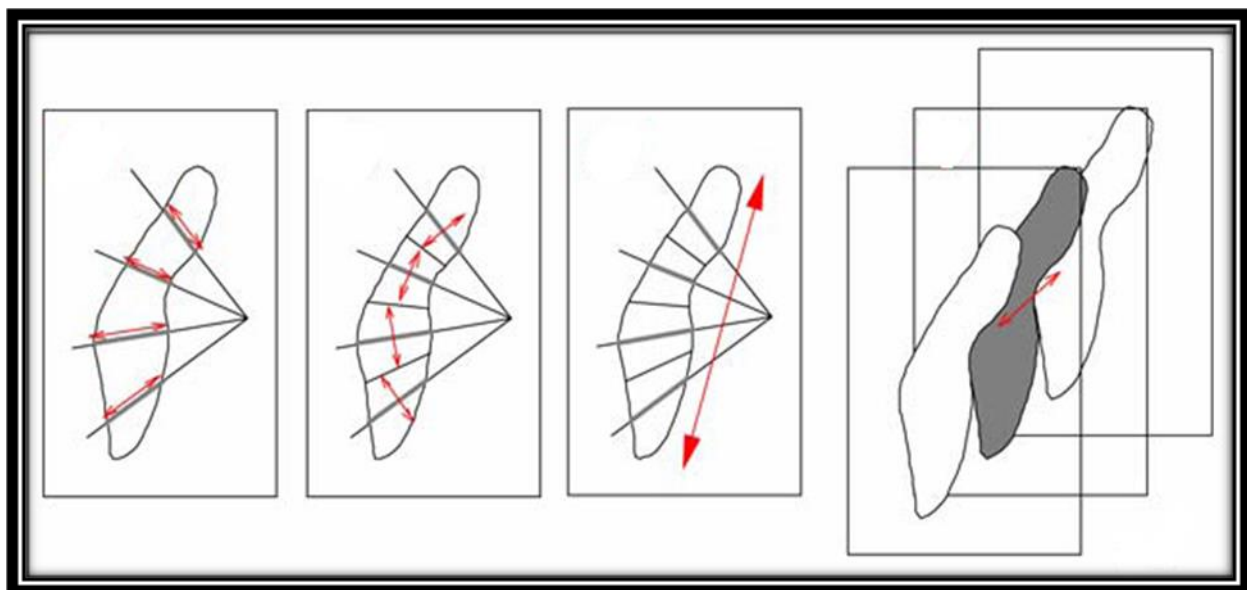


Figure 2.2: Sectional estimation method (Glacken and Snowden, 2001)

Compute weighted average grade of mineralized zone within vertical section;

Project mineralized zone grade midway towards adjacent vertical sections;

Compute weighted average grade of 3D mineralized envelope.

The main advantage of sectional methods is that it can be done on intricate shapes. Some disadvantages on the other hand include:

Not flexible for a producing mine; it is often done manually and once for all;

It has some polygonal flavor since grades are projected half ways in the above step 2 and step 4, thereby inheriting the disadvantages of polygonal method;

No grade distribution within mineralized envelope is assumed (Virley, 2010).

Limited averaging of grades occurs in some techniques, not common nowadays, where, for instance, triangulations are constructed about the mid-point of intersections, with the grade of each triangle being the arithmetic mean of the grades at each of its vertices.

Other approaches include averaging values at the corners of other regular shapes or within grade contours (Glacken and Snowden, 2001).

2.3.2 Block Modeling Methods

A block model is a series of blocks or cells that collectively define a larger zone. This zone could be geologic, geotechnical, metallurgical or any volume applicable to mining. The advent of block modeling has revolutionized the mineral resource industry and has been improved tremendously with increasing power of computers. Common practice is to define a block model, comprising a series of orthogonal cuboid blocks either of the same size or of subsets of a nominated 'parent' block size. The blocks are used to fill the various domains within which estimation would be performed (Fieldgate, 2009). The advantages of using block models include but not limited to the following;

Block modeling approach provides the framework for a good local estimation, and that provides a model which lends itself readily to reserve estimation and mining selectivity (Glacken, 1996).

A block model is a very efficient data structure in which large amount of information can be stored. Very flexible construction methods allow creating models that accurately represents the geological and mining conditions. Block models allow excellent visualization of geological zones or grade trends within an ore body. Block models allow for the increase use of geostatistical methods to express grade distribution. Rapid calculations between the values within variables allow effective resource/reserve estimates to be undertaken.

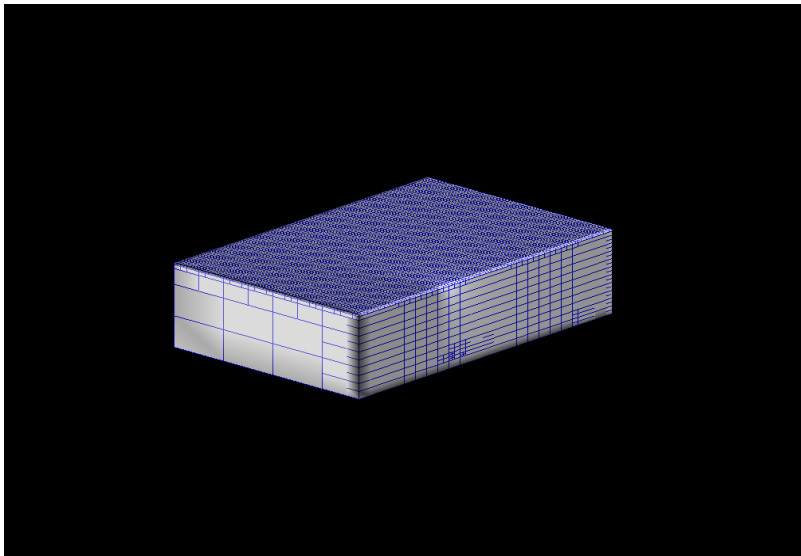


Figure 2.3: Regular Sized Block Model (Gemcom Surpac v6.1.4)

The next step up in computational complexity is to apply some weighting function to grades surrounding a point or block to be estimated; Figure 2.3 shows a typical Surpac 3D block model configuration (Guibal, 1997).

This is attractive where a series of regular points or blocks need to be estimated in two or three dimensions for subsequent planning or manipulation. Estimation techniques that depend on block models can be grouped under the two main umbrellas; the linear and non-linear estimation

methods. Linear estimation techniques are those estimation techniques which require some form of linear weighting of samples during the estimation process (Glacken, 1996). In linear estimation, the weights are applied to the actual samples used to estimate the blocks or points and this makes them exact estimates i.e. they are located at where the estimate was done. Some common examples of linear estimation methods are; Inverse distance power weighting (IDW), Ordinary Kriging, and Simple

Kriging common characteristic of all the linear estimation methods

is that they are all linear combinations of the data (Guibal,1997).

2.3.2.1 Inverse Distance Weighting

The simplest weighting function in common usage is based upon the inverse of the distance of the sample from the point to be estimated, usually raised to the second power, although higher or lower powers may also be used (Figure 2.4). Such inverse distance techniques introduce issues such as sample search and declustering decisions, and cater for the estimation of blocks of a defined size, in addition to point estimates.

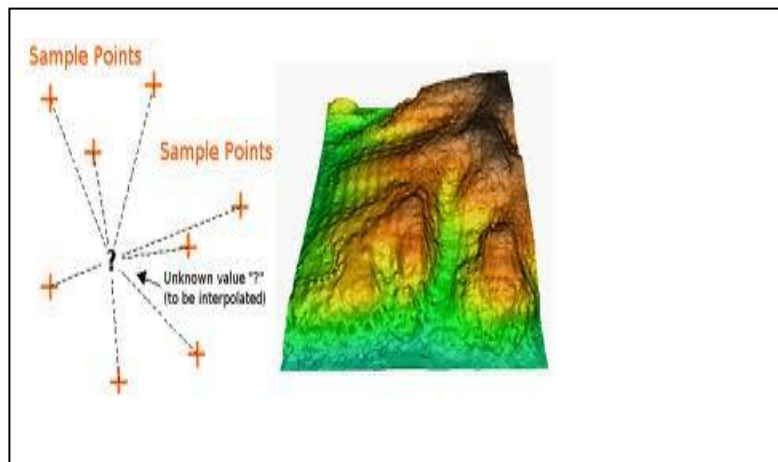


Figure 2.4: Diagram showing IDW Estimation method (source IDW interpolation; courtesy QGIS)

Where $Z_v(X_0)$ is the estimated block or point using IDW to the power Θ and d are the distances of samples $z(x)$ to the location being estimated.

As can be seen the weighing scheme is independent of the spatial relationship with sample values.

The Estimate of grade at location V that is $Z_v(X_0)$ given that the power is 3 is given below

$$Z_v(X_0) = \frac{\left(z_1 \cdot \frac{1}{d_1^3} + z_2 \cdot \frac{1}{d_2^3} + z_3 \cdot \frac{1}{d_3^3} \right)}{\left(\frac{1}{d_1^3} + \frac{1}{d_2^3} + \frac{1}{d_3^3} \right)} \quad \text{Source: (Glacken and Snowden, 2001).}$$

The inverse distance method is much better than the polygonal method; however it does not account for geologic characteristics such as anisotropy and clusters which is usually common in mineral deposits (Glacken and Snowden, 2001).

2.3.2.2 Kriging Technique

Kriging is an estimator designed primarily for the local estimation of block grades as a linear combination of the available data in or near the block, such that the estimate is unbiased and has minimum variance. It is a method that is often associated with the acronym B.L.U.E. for *best linear unbiased estimator*. Ordinary kriging is *linear* because its estimates are weighted linear combinations of the available data, *unbiased* since the sum of the weights is 1, and *best* because it aims at minimizing the variance of errors. The conventional estimation methods, such as inverse distance weighting method, are also linear and theoretically unbiased. Therefore, the distinguishing feature of ordinary kriging from the conventional linear estimation methods is its aim of minimizing the error

variance (Isaaks and Srivastava, 1989).

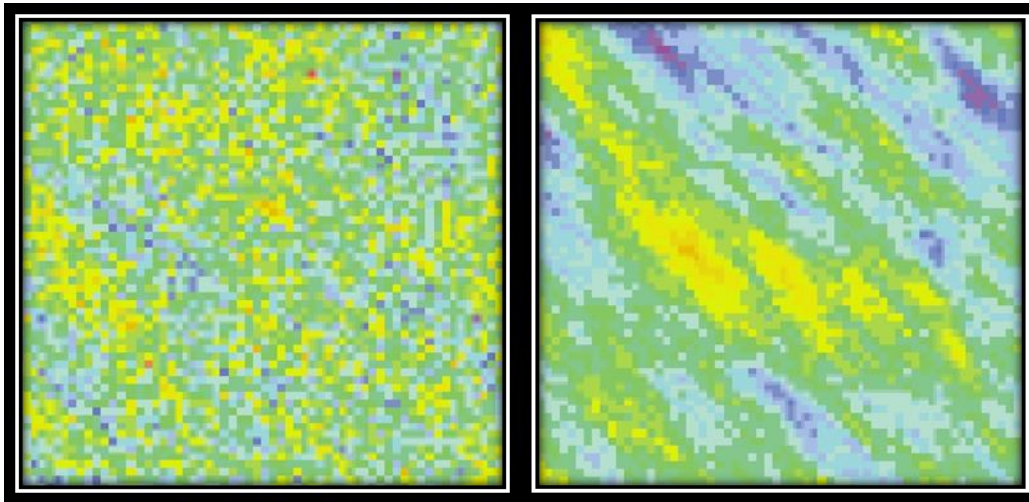


Figure 2.5: IDW on the Left and Ordinary Kriged Estimate on the right

source: (Isaaks and Srivastava, 1989).

Although the Kriging technique is a powerful geostatistical technique, the estimates are mostly too smooth if care is not taken during the interpolation process. Figure 2.5 above shows smooth grades of OK compared with IDW.

These methods all seek to utilize the spatial relationship between samples, as quantified by the semi-variogram, to provide weights for the estimation of the unknown point or block. The standard technique of geostatistics, named kriging by Matheron in honor of the South African mining engineer Danie Krige, has many varieties, but those most commonly used are the variants of kriging, the so-called linear kriging techniques (Guibal and Touffait, 1982).

The evolution of geostatistics in the last decade and a half has seen the development of a range of non-linear kriging techniques, based upon non-linear transformations of grades. These include the commonly used methods of indicator kriging and the various flavors of uniform conditioning and disjunctive kriging. Non-linear kriging approaches seek to estimate a distribution of grades into each point or block, thus providing some measure of local uncertainty (Vann, 1998).

The most recent development, and the most complex and computationally intensive method used in resource estimation, is that of conditional simulation. This builds upon kriging and the use of stochastic (random) sampling approaches to provide, in theory at least, a full measure of uncertainty. Conditional simulation, while honoring data values locally, over comes many of the short comings of kriging methods. The negative aspects of complex approaches such as this are the time of computational power required for its implementation and the lack of simplicity, which hampers understanding and acceptance (Pan and Harris, 2000).

All methods described above have a number of common attributes; all must be based upon a carefully defined geological model, and all require extensive validation by the practitioner. A good overview of the various techniques is given by Carras (2001).

It should be noted that the resource estimation process, while often driven by the geoscientist, is a team endeavor, and should include contributions from mining, metallurgical and often the commercial disciplines. Another essential aspect of the process is quality control, including management of the estimation process and most importantly, management of the data sourced from the various disciplines (Journel and Huijbregts, 1978).

2.4 THE RESOURCE ESTIMATION PROCESS

2.4.1 Geologic Framework and Domains

The resource estimation domains should honor the geology wherever possible, but where this is not achievable, some other form of domain boundary needs to be imposed. Typically this is a grade boundary defined by a cut-off grade which should bear some relation to the economics of the deposit to be evaluated, however preliminary assessment needs to be made. Domains may be defined by a combination of statistical and geostatistical means, in addition to or instead of by a cut-off grade (Glacken and Snowden, 2001). Where grade alone is used to define the domain

boundaries, then it is risky to use a cut-off grade too close to the overall economic cut-off of the deposit. If this is the case, the result is often the overestimation of grades within the domain, and the underestimation of grades outside the domain. Some deposits show a rapid change from ore to non-ore, so selecting a natural cut-off is relatively safe (e.g. Osborne copper-gold deposit, NW Queensland, and most of the Achaean lode gold deposits of the Yilgarn craton in Western Australia) as presented by Glacken and Snowden (2001).

These boundaries may be termed hard, and greatly facilitate resource estimation. The other extreme is the gradual or soft boundary, requiring much more careful treatment when estimating resources. Structurally complex deposits such as those at the Macraes gold mine, New Zealand, display a combination of hard and soft boundaries. The well-defined hanging wall of the shear zone is a hard boundary, but the footwall is gradational and areas of associated stock work mineralization also have soft boundaries. It is possible, in defining domains for resource estimation, to impose several types of boundary conditions (Glacken, 1996).

Soft domain boundaries allow grades from either side of the boundary to be used in estimating both domains, to varying degrees. Hard domain boundaries do not permit interpolation of grades across domains. One way soft domains are often used in estimation, data within a high-grade domain is not used to estimate within an adjacent low-grade domain, but estimation of the high-grade domain will use data from within the low-grade domain. Such one-way boundaries introduce conservative bias and avoid artificially sharp grade boundaries. More useful are partly soft domain boundaries, where only limited crossing of domain boundaries is allowed (Glacken and Sommerville, 1998).

Mathews et al, (1999) discusses the effects of domaining on resource estimation in the Cobar region of New South Wales. Finally, it is worth bearing in mind that several different types of domain may be used in the same region. A typical example is the use of oxide, transition, and

primary domains to allocate specific gravity in an oxidized mineral deposit. Similarly, metallurgical domains may be used in addition to geological domains to define areas of differing metal recovery. Often one set of domains is used for estimation and another for mining/metallurgical purposes. As many different types of domain as are needed to define the resource and to provide information for reserve estimation should be used.

2.4.2 Assignment of domains

Once the geological model is as complete as the available data and knowledge of the setting and genesis of the mineralization allow, the data must be coded according to its domain. A domain in this context is defined in the loosest sense, and represents an area or volume within which the characteristics of the mineralization are more similar than outside the domain. (Glacken and Snowden, 2001).

Often the geological structural modeling will have highlighted a number of domains, which should conform in some way with the geology wherever possible. In many cases, the geological units are the same as the mineralization domains, such as in many iron ore, sedimentary base metals or base metal sulphide deposits. In this case, the grade modeling is constrained entirely by the geologic model, and the resource grade model will be a reflection of the geology. In many other cases the mineralization of interest does not entirely correspond to a geological unit, or it transgresses geological units. This is a typical feature of structurally-controlled mineralization, such as shear-hosted gold deposits (e.g. Ahafo deposits in Ghana).

A number of deposits, such as those in the Callie and Granites ore systems of the Northern Territories of Australia, combine elements of structural and lithological control. A further class sees disseminated mineralization scattered widely throughout a limited range of rock types, with no clear geological points to the distribution of grades. Typical examples of this style of

mineralization are the large porphyry-hosted copper and gold deposits, such as those at Batu Hijo being mined by Newmont and Grasberg being mined by Freeport McMoRan Copper and Gold Mining in Indonesia.

2.4.3 Exploratory Data Analysis (EDA)

Exploratory data evaluation is an essential part of every high quality, mineral inventory estimate. Efficient analysis involves a thorough organization of available quantitative data that forms the basis of the estimates and perhaps the formation of composites grades (Sinclair, 1999).

Statistical analysis may help decide the nature of the domain boundaries. The analysis should include studies of how grades change at domain boundaries. Once a series or several series of coherent domains have been defined, the numerical characteristics of the mineralization in each of these areas should be described. This will not only assist with the choice of a grade interpolation method, but will also highlight any special data treatments (such as grade cutting) which need to be applied. Where there are several minerals or variables of interest, statistical analysis will reveal any patterns or correlations between them which need to be taken into account (Glacken and Snowden, 2001).

Statistical analysis should take place within the domains defined either by the geological model or by other approaches. One prerequisite of data analysis is that the samples all represent an equal volume. This is called the support of the sample. The accepted way of ensuring equal support of all samples within a domain is to composite the samples (usually drill- or interval-related data) into equal lengths (Glacken and Snowden, 2001). There are various algorithms for compositing, but the practitioner should always check that the results are as expected. Another problem which needs to be tackled before data analysis can take place is preferential clustering of data, which not only affects statistical analysis but can also bias the variography. Since there is a natural tendency to drill more holes or take more samples of the higher grade portions of the

mineralization, clustering or irregular representation of samples is a real possibility. Domaining might be necessary to correct this.

Alternatively, various declustering approaches are available to ensure that each sample represents an equal volume for statistical analysis. Failure to take heed of preferential clustering of data may lead to biased results off course interpolation algorithms implemented in most commercial Ordinary Kriging packages have embedded declustering technique such as quadrant and octant searches. It should be noted that, sometimes it may be desirable to treat different drilling types (e.g. diamond and reverse circulation) differently within the same domain (Vann, 2008).

If sampling is done on fixed lengths, then compositing should be on multiples of the original sampling interval to minimize unnecessary smoothing. Zonal compositing (that is, compositing within domains) prevents this in many commercial packages, as composites commence after a change in zone at an odd interval, not at the start of an original sample, especially where zones are not defined on sample intervals. The method of compositing adopted should take into account the style of mineralization and boundary requirements (Vann, 2008). For example in a narrow vein, hard boundary environment, it is essential to composite by zone to avoid over- or under-dilution. This is of less consequence where the boundaries are gradational. There are some schools of thought that believe that composites should always be equal to the height of the mining bench. There are advantages in employing bench compositing, in that the input data is fully diluted to the bench height. However, where drill holes are angled at various orientations with respect to the mining bench, this could result in different support lengths for different composites, particularly when drilling is orientated close to horizontal. Down hole compositing ensures that each sample represents the same support. Assay lengths should not be split into smaller composite lengths, as this results in an artificially low variance for the modified support

as adjacent composites could be identical in value. Issues of bench compositing are starting to have less importance as true three-dimensional methods of resource estimation predominate, and in this paradigm each composite represents a point in three-dimensional space, irrespective of orientation (Glacken and Snowden, 2001).

Once compositing and declustering have been applied to the data, statistical analysis can take place. There are no recipes for this, but a good summary of statistical analysis techniques is given in Isaaks and Srivastava (1989). Desired outcomes from statistical analysis of the data would be:

- depiction of any trends evident within the domains;
- depiction of data distributions in both histogram and cumulative probability form;
- a decision as to whether a distribution-based interpolation technique may be used;
- definition of any data subsets within each domain;
- comparison of different sample types;
- establishment of the basis for any top cuts to be applied;
- choice of thresholds for indicator kriging, and
- Establishment of any relationships between multiple variables.

Statistical analysis may indicate that some domains have very mixed populations, e.g. excessively high coefficients of variation or multi-population probability plots. This may signal the need for more or different domains or, if it is not possible to separate out the populations, indicator techniques may be necessary for variography and kriging. Where there is a positive correlation between the bulk density of the ore and the grade of the minerals of interest, typically in massive sulphide deposits, the bulk density should be involved in the actual estimation process, in other words, sample intersections used for grade estimation should be weighted by density as well as by length. Another option which is often considered is the direct interpolation

of bulk density along with the grade variable(s). This method of density weighting is used at many base metal deposits e.g. Kambalda, (Glacken et al, 1998).

2.4.4 Variography

As a precursor to any of the various kriging or conditional simulation techniques, spatial (geostatistical) analysis of the domained data – that is, the calculation and modeling of semi variogram is an obvious and necessary step (Vann, 2008).

However, the analysis of the continuity of data values in three dimensions is also a very useful precursor to almost any form of estimation, as it defines, at the very least, the classical ‘range of influence’ of the data. Knowledge of this can and should have a bearing on the choice of a suitable grade interpolation technique. For instance, the direction and magnitude of the ranges may be used to define grade search parameters or the maximum size of polygons of influence.

The generation of semi-variogram and their subsequent modeling should reveal the structure of spatial continuity of the data, and should confirm geostatistically any geological trends previously modeled or noted. The practitioner should always seek a geological explanation for the principal directions revealed by semi-variogram analysis. Quite often such a step will reveal some subtle controls on mineralization not immediately evident in the geology. Geostatistical analysis will also reveal any anisotropy in the domains of the mineral deposit and seek to quantify the magnitude of that anisotropy (Isaaks and Srivastava, 1989). The anisotropy may be represented by the same total variation but at different ranges in the various directions (geometric anisotropy), or by different magnitudes of the variation in different directions (zonal anisotropy).

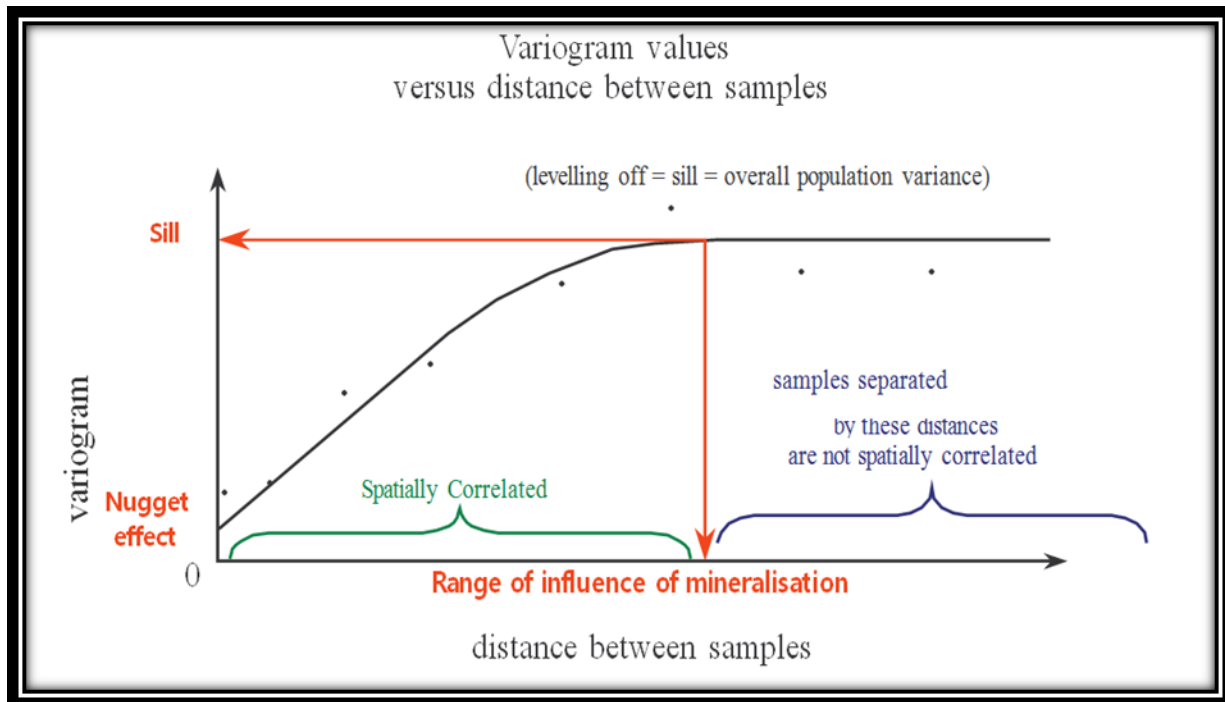


Figure 2.6: Spherical model fitted to an Experimental semivariogram (Snowden, 1999)

The analysis should also seek to verify the decision to use hard or soft domain boundaries, and should confirm the amount of random variation, whether due to sampling problems or due to inherent randomness in the data, in each direction. Although variography should not be used as a substitute for geological interpretation, it can indicate whether the geological model is appropriate (Isaaks and Srivastava, 1989). Indicator variography may demonstrate that the amount and direction of anisotropy varies with grade, e.g. high-grade veins may have a different orientation compared to the bulk of the mineralization. Finally, the definition and modeling of semi-variograms will help with the definition of the basic block size to be used in any block modeling techniques, and will provide information for the aggregation of grades into larger block sizes if required. Some Australian operators use variography to determine the range of influence as shown in Figure 2.6 and hence filter size for inverse distance interpolations. Geostatistical techniques for data analysis are presented by Coombes, 1997.

2.4.5 Nugget Effect

Confidence in classifying a Mineral Resource is affected by the nugget effect. This is a term used to describe how well sampling results can be reproduced by repeated sampling at the same location. It incorporates both the natural inherent variability of the deposit plus variability due to sample size, sample preparation and analysis. The more homogeneous the mineralisation, the lower the nugget effect. Finely disseminated mineralisation will tend to give easily reproducible results but heterogeneous mineralisation will be sensitive to the method of sampling and could give variable results from a single location (Isaaks and Srivastava 1989).

2.4.6 Kriging variance

The variance of estimation can be calculated for any configuration of samples around a given block. In the case of a weighted grade estimate calculated by the kriging method of estimation, this variance is known as the kriging variance and represents the expected value of the squared error between the actual grade and the estimated grade. It is dependent on a number of items including block size, internal block discretisation, sample numbers and layout and the semivariogram parameters but is independent of the actual grade. Kriging variance can be used as an objective measure of the geostatistical confidence in a given block with respect to data configuration. Within a given geological domain, a map of kriging variance highlights the relative confidence from block to block and, apart from the obvious application to Mineral Resource classification, is a drillhole targeting tool which exposes locations where infill drilling may be beneficial (Carras, 2001).

Kriging variance links the drillhole spacing and semivariogram ranges of influence and appropriate variances can be chosen to define Mineral Resource confidence categories. The most effective way of doing this is to display the colour coded variances and drillholes in plan and section in order to define which variance most closely obeys the limits defined by the semivariogram ranges of influence. In applying the classification, there is an automatic distinction made between interpolated blocks (lower variance, more confidence) and extrapolated blocks (higher variance, less confidence). Any volume extrapolated beyond the range of influence is given no more than Inferred status, as there is no correlation between grades of samples at locations this far apart. In situations of complex nested structures, small scale structures may account for most of the variability and should be given most weight in defining confidence. Thus, simply having a long range structure present may not be sufficient to infer a high confidence if, in addition, small scale structures are apparent (Armstrong, 1988).

2.4.7 The volume model

Prior to grade estimation, it is necessary to convert the geological model and/or the domain model into a physical, usually three-dimensional, representation of the volume of mineralization to be estimated. Common practice is to define a block model, comprising a series of orthogonal cuboid blocks either of the same size or of subsets of a nominated 'parent' block size. This is usually a semi-automatic process, but generally requires a confining shape in which to generate the blocks. Typically this is given either by a three-dimensional enclosed solid or by a series of surfaces. These are generated by wire framing strings of points on section or plan, or by triangulation of a series of points and strings into a digital terrain model, more commonly termed

a surface. Surfaces may also be interpolated from the raw data by a number of surface-fitting techniques.

Modern mining softwares have advanced to such a degree that almost all of the major packages provide moderate to excellent tools for defining both the three-dimensional shapes and for filling them with blocks. Key decisions for the practitioner include:

How large should the blocks be compared to the data?

What should the relative shapes of the blocks be in the three dimensional space?

How complex should the wireframes be?

Should sub-ceiling (sub-blocks) be introduced, or

Will the extra resolution produce too many blocks that are unrealistic to the actual mining selectivity (Glacken and Snowden, 2001).

2.4.8 Unsmoothed grade estimation

As mentioned above, despite the speed and power of modern computers and the sophistication in estimation algorithms which this allows, many practitioners carry out grade estimation unsmoothed or polygonal techniques. The essential aspect of all of these algorithms is that each grade, or series of grades in a defined intersection, is allocated unaltered to a specific area of influence. The simplest means of allocating grades is via polygons of influence, which are generated by constructing the perpendicular bisectors between adjacent samples or intersections. These are generally constructed in two dimensions on composited intersections, and rarely in three dimensions. In the block modeling context the polygonal approach is represented by the nearest neighbour approach, in which each cell or block to be estimated assumes the grade of its closest sample within the defined domain. This in effect generates three-dimensional polygons. Although conceptually very simple, many resource and reserve systems based upon the

polygonal approach are very complex in their treatment of individual samples and their geometrical relationship to the ore surface. Many systems involve projection onto both a horizontal or vertical plane and the subsequent geometric manipulation of areas and volumes. A very common adaptation of the polygonal approach is the cross-sectional resource estimation method. In this approach, sectional interpretations are constructed, generally orthogonal to the strike of mineralization. Each separate ore intersection on each drill hole is allocated its own volume of influence, which usually extends halfway to the next drill hole up and down dip, and halfway to the next section in each strike direction. An adaptation of the polygonal approach in narrow ore bodies is the use of accumulations (sometimes termed service variables). Metal accumulations are the product of grade and thickness. In this approach the accumulation and the thickness are estimated independently. The final grade is obtained at each point by dividing the accumulation by the thickness. The accumulation approach only works well where there is no correlation between grade and thickness, and also requires the spatial orientation of the samples to be taken into consideration as true (normal to dip) ore thicknesses are required. It is worth noting that the accumulation and thickness variables can be estimated using any technique, including geostatistical methods.

The advantages of the polygonal, nearest neighbor, and sectional methods are their simplicity and theoretical ease of application (although, as noted, the geometrical manipulations may be extremely complex). Another bonus is the speed of obtaining results.

The polygonal estimator also has the added advantage of being the perfect declustering technique for irregularly spaced datasets. However, there are a number of distinct disadvantages, including the lack of applicability of the method to thick, on-tabular bodies, and the assumption of an unrealistic model for grade variation. The major objections by advocates of geostatistical techniques include the issue of ignoring sample support (every sample has a different support,

equivalent to the size of the polygon or the area of influence) and possible conditional bias (high-grade areas are overestimated and low grade areas are underestimated). This is thoroughly discussed by Glacken and Snowden, 2001.

2.4.9 Smoothed grade interpolation

Most resource estimation techniques, and most in common practice today, use some form of grade smoothing to interpolate values into a block based upon surrounding samples. These fall neatly into two categories – the non-geostatistical methods and the geostatistical methods.

The methods of grade interpolation use some relationship between the distance of a sample from the block centre and the weighting which it is given. The most commonly-used approach weights each sample by some power of the inverse of its distance from the block to be estimated, usually the second or third power. The power chosen is somewhat arbitrary, although it is well-known that the lower the power, the greater the smoothing of grades. Higher powers of inverse distance tend to approximate a nearest neighbor approach, with distal samples receiving almost no weight (Glacken and Snowden, 2001). The geostatistical approaches to grade interpolation all rely on some form of kriging, whereby the weights given to each sample are derived from the semi-variogram model, which defines the continuity of grades in two or three dimensions. These geostatistical methods may in turn be subdivided into three classes – linear kriging, non-linear kriging, and simulation. All geostatistical methods rely to a lesser or greater extent on the assumption of stationarity, which is seen as the decision to pool data within a given area or domain, and not as a hypothesis which can be proven or disproven (Glacken and Snowden, 2001).

Linear kriging techniques are the simplest to apply, and centre on simple or ordinary kriging and their variants. These techniques are generally based on classical parametric statistics, which are

affected by the distribution of the grade population underlying the data. Ordinary kriging is more resistant to departures from the assumption of stationarity than simple kriging, and is optimal for normal or Gaussian distributions of data, although still effective in other circumstances. Non-linear techniques have gained in popularity in the last 15 years, and address some of the deficiencies of the linear techniques. All non-linear kriging techniques are based upon non-linear transformations of the sample data such as the natural logarithm, the Gaussian (normal scores) transform, or the indicator transform. The most widely-used non-linear techniques are the various flavours of indicator kriging, uniform conditioning and disjunctive kriging. A comprehensive review of most non-linear kriging approaches is given by Vann (1998).

The perceived advantage of non-linear kriging techniques is firstly that they are able to cope with highly-skewed or mixed distributions of data (in other words, data most commonly seen in practice) and secondly, that they are able to derive local distributions of uncertainty which lead to a practical estimate of resources above a range of cut-off grades. Such estimates are known as ‘recoverable resources’, and while representing the correct support for mining still need to be subjected to the reserve process. It is fair to say that indicator kriging is the most easily understood and the most commonly applied of all the non-linear kriging techniques; overviews of indicator kriging are given by Glacken and Blackney (1998) and Khosrowshahi et al (1998).

Practical implementations of non-linear kriging techniques are presented by Elliott et al (1997), and Matthews *et al* (1999). Indicator kriging is a reasonably robust technique in that considerable changes in variogram parameters can be withstood before greatly affecting estimated grades. Some other geostatistical estimation methods may be much more dependent on the accuracy of the variogram models. As gold typically has difficult variography (because of mixed mineralization styles and often noisy sampling and assaying) robustness is desirable.

2.4.10 Conditional Simulation

Conditional simulation, which typically uses a kriging technique combined with a Monte Carlo sampling approach, has the potential to enhance most of the geostatistical approaches currently used. Conditional simulation produces a number of equally-likely pictures of the grade estimation, each of which honors the distribution and spatial continuity inherent in the input data. Conditional simulation also has the ability to reproduce the level of variability in the samples, in contrast to other smoothing methods which reduce the variability. Simulations allow the practitioner to choose a result which is commensurate with the objective of the investigation, and have the ability to incorporate the risk and cost profiles of the operation under investigation. An overview of conditional simulation for resource estimation is given by Khosrowshahi and Shaw (1997). Practical aspects are presented by Rossi and Alvarado (1998). Schofield (1993) describes a particular use of conditional simulation, that of identifying the optimum drilling density. Conditional simulation may be most useful where data are closely spaced (i.e. ample conditioning data) and may be seen as supplementing other estimation methods (i.e. by providing sensitivity analysis) rather than replacing them. The key aspect of simulation which differentiates it from estimation is the consideration of probability or risk (Dowd 1996) and (Glacken 1996). It is possible to derive the probability of exceeding any given cut-off grade, or to define true confidence intervals of a specified degree of certainty around any single figure. The risk or confidence is a function of the production unit; the chance of achieving target grades or blends is greater for large parcels of ore (such as six months production) than daily production units. In any case, however, simulation allows the quantification of that risk.

2.4.11 Volume-variance, sample search and block size issues

It is well-known that there is a volume-variance relationship, whereby grades based on a sample support are more variable than grades based on a block support, and moreover that the larger the block, the less variable, or smoother, the distribution of the grades. It is thus important to model the appropriate block size to achieve a representative distribution on which to the grade/tonnage relationship for a given mining scenario. Whatever the estimation approach adopted, all techniques which seek to interpolate grades into blocks (except the nearest neighbor method) depend on the sample search procedure. The methods by which samples are selected for subsequent weighting is critical to the process and in some cases (e.g. Carras, 2001) are of more consequence than the estimation algorithm itself. A good sample search plan should have some or all of the following features:

- Declustering of data via octant or quadrant selection;
- Restrictions on the number of samples from one drill hole;
- Minimum and maximum numbers of samples specified for search;
- Preferred search directions (i.e. anisotropic search); and
- Restriction of the influence of high-grade samples.

In common with the sample search plan are issues of block size for interpolation into block models. The block size to be used should ideally bear some relation to the mining equipment Planned or used, often referred to as the selectivity. The concept of the selective mining unit is the smallest parcel of ground on which mining decisions, such as the allocation to ore or waste, may be made. The block dimensions should also be considered in relation to the sampling grid; blocks that are too small will result in over smoothing of the sample data and subsequent very low precision results (Glacken and Snowden, 2001).

Over-smoothing results in conditional bias, where by high-grade blocks are underestimated and low-grade blocks are overestimated. A number of tools are available to decide on a suitable block size – these are discussed in some detail by Krige (1996). Under smoothing results in a form of conditional bias whereby high-grade blocks are overestimated and low-grade blocks are underestimated. Elliott *et al* (1997) describe the change in the grade/tonnage relationship depending on whether a model is based on kriged block estimates (smoothed) or raw assay data (unsmoothed).

Reconciliation of the estimates with the actual head grades achieved during mining, plus the eventual processing of low-grade stockpiles, illustrates the sensitivities of the volume-variance effect. Conditional simulation provides some useful tools to check or determine optimal block sizes and the degree of smoothing inherent in a resource. Small scale simulations on representative areas or domains allow the change of support to be determined more accurately and locally than using one of the global techniques.

2.4.12 Checking the resource

Validation of the resource estimate can be undertaken using various tools as presented by Coombes, 2008, these include:

- Graphical plots of sections/plans showing input data and block grade estimates;

- Histograms of input and output grade distributions within domains;

- Input and output mean grades within domains and Contact plots; and

- Generation of resource estimates using alternative algorithms or approaches.

The graphical validation plots of the resource need to make geological sense and show accord with the geological model. If not, further work must be carried out to resolve any anomalies. Once again, the importance of clustering on data statistics should be taken into account as this

can bias the mean of the input data. It is also important to note that the mean grade obtained can also be biased if the population is skewed in distribution, and the input mean grade needs to be corrected accordingly. This is typically done by applying a top cut.

If the data is perfectly lognormally distributed (i.e. the logs of the data show a normal or Gaussian distribution), the Sichel mean is a better estimator of the unbiased population mean. The best validation tool for any resource estimate is reconciliation with production. Comparisons between the grade/tonnage curves for the resource model and the grade control model within a given identical volume and with the production records for the corresponding mining period will give an operation the greatest confidence in the merit of the resource model

2.5 CLASSIFICATION OF MINERAL RESOURCE AND ORE RESERVE

2.5.1 Mineral Resource

A ‘Mineral Resource’ is a concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge (JORC, 2004).

The final task in resource estimation is to classify the Mineral Resources in order of increasing geological confidence, into Inferred, Indicated and Measured categories (Figure 2.7). This not only imparts levels of confidence in the results, but also dictates which classes of Ore Reserve may be generated by subsequent modification of the resource figures. The task of resource classification under the JORC Code (JORC, 2004) is the duty of the Competent Person, and therefore is ultimately a subjective duty, but notwithstanding this, the resource classification

should ideally be based upon as many objective factors as possible. Clearly those factors related to the data and their configurations are of most importance, but these may be tempered by overriding geological, mining or data-related issues. At the simplest level, resources may be classified on the basis of the overall *drill spacing* within the various domains or regions of the deposit. This is easily understood, but may not take into account any anisotropy which exists.

Another approach is to consider the average distance from the block centre of those samples used to estimate that block, or simply the number of samples defined inside the search volume.

Another technique expands search volumes during multi-pass estimations, with those blocks being estimated by the most distal samples having the lowest-confidence resource category. One of the more useful criteria for resource classification is the kriging variance or error arising from the estimation.

The kriging variance depends on the arrangement and continuity of samples around the block, and thus is a good indicator of overall sample spacing which takes anisotropy and sample clustering into account. Other numerical approaches include the regression coefficient and kriging efficiency measures proposed by Krige (1996). There is a move in some sectors of the industry towards the use of conditional simulation as a resource classification aid (Guibal, 1997). Since simulation quantifies the grade confidence, for a given block size, in addition to considering data position and continuity, it will provide more information to assist resource classification than numerical indicators such as the kriging variance alone. Any simulation-based resource categories must be tempered by detailed consideration of non-grade factors, as with any classification. In most cases the resource classification will be based upon a combination of criteria, numerical and geological, with overall manual override by the Competent Person (Snowden, 1996).

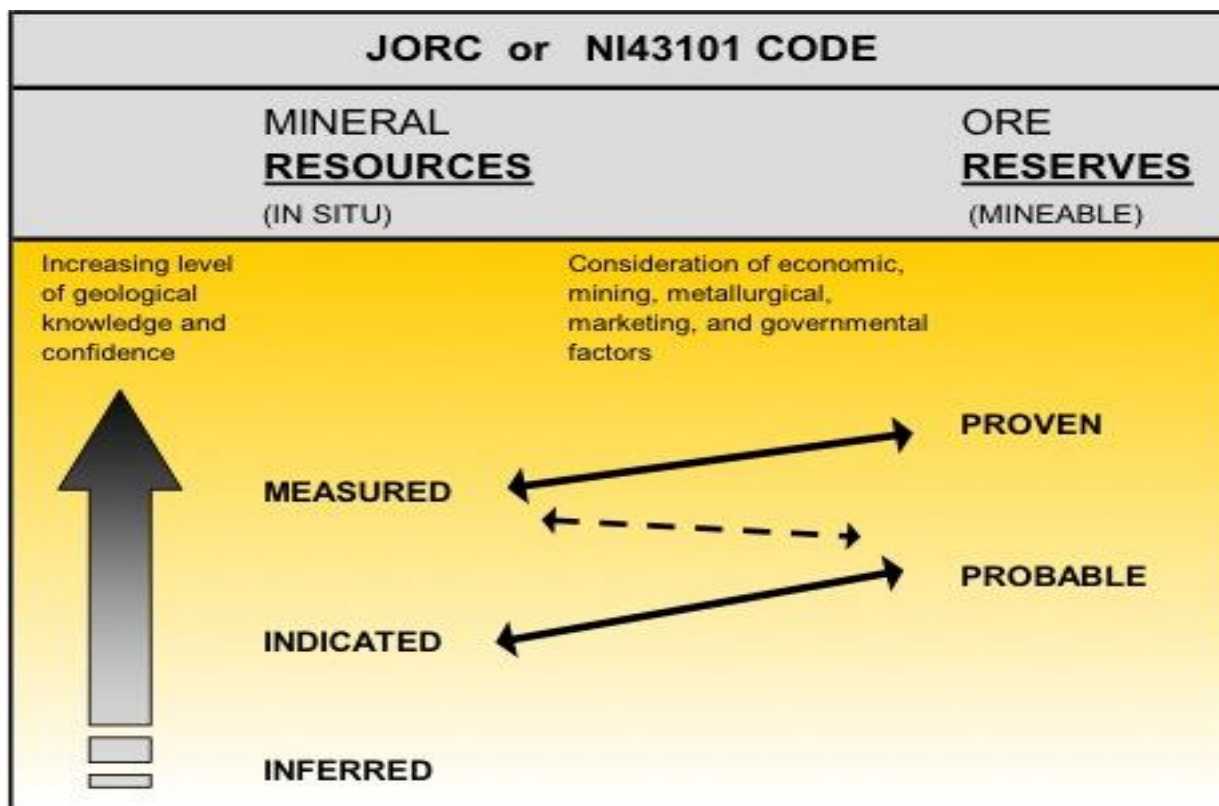


Figure 2.7: Relationship between Mineral Resources and Ore Reserves (JORC Code Review, 2011).

2.5.1.1 Inferred Mineral Resource

The Inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data are insufficient to allow the geological and/or grade continuity to be confidently interpreted. Commonly, it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration. However, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur. Confidence in the estimate of Inferred Mineral Resources is usually not sufficient to allow the results of the application of technical and economic parameters to be used for

detailed planning. For this reason, there is no direct link from an Inferred Resource to any category of Ore Reserves (Figure 2.8).

Inferred Mineral Resource therefore is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low confidence level.

2.5.1.2 Indicated Mineral Resources

A mineral concentration may be classified as an Indicated Mineral Resource when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralisation. Confidence in the estimate is sufficient to allow the application of technical and economic parameters, and to enable an evaluation of economic viability.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource, but has a higher level of confidence than that applying to an Inferred Mineral Resource.

2.5.1.3 Measured Mineral Resources

Mineralisation may be classified as a "Measured Mineral Resource" when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt in the estimate. In this

regard the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly impact potential economic viability.

This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit. Confidence in the estimate is sufficient to allow the application of technical and economic parameters and to enable an evaluation of economic viability that has a greater degree of certainty than an evaluation based on an Indicated Mineral Resource. Parameters such as which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

2.5.2 Mineral Reserves

A ‘Mineral Reserve’ is the economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserves. Mineral Reserves are those portions of Mineral Resources which, after the application of all mining factors, result in an estimated tonnage and grade which, in the opinion of the Competent Person making the estimates, can be

the basis of a viable project after taking account of all relevant modifying factors. Mineral Reserves are reported as inclusive of marginally economic material and diluting material delivered for treatment or dispatched from the mine without treatment.

The term ‘economic’ implies that extraction of the Mineral Reserve has been demonstrated to be viable and justifiable under reasonable financial assumptions (JORC, 2004).

The term mineral reserve need not necessarily signify that extraction facilities are in place or operative or that all governmental provisions and approvals have been received. It does signify that there are reasonable expectations of such approvals.

2.5.2.1 Probable Mineral Reserve

A ‘Probable Ore Reserve’ is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration/adjustments of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified in economic wise. As mentioned before with increasing levels of grade continuity and geological information gathering, Probable Ore Reserve has lower confidence than Proven Ore Reserve but the information gathered up to the level of Probable Ore Reserve is of sufficient quality to serve as the basis for a decision to develop a deposit (JORC, 2004).

2.5.2.2 Proved Mineral Reserve

A ‘Proved Mineral Reserve’ is the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. A Proved Ore Reserve represents the highest confidence category of reserve estimate. The style of mineralisation or other factors could mean that Proved Ore Reserves are not achievable in some deposits (JORC, 2004).

CHAPTER THREE

METHODOLOGY

3.1 The Local Grid System

The Teberebie local grid coordinate system has been used in this study with its origin designated with reference to the coordinates of the holes U187 and GDM26 respectively given as 10,500 E, 10800 N and 11100 E and 10700 N. The elevation or the reduced level has also been set at 100 m being equivalent to 120 m above Ghana National Grid reference datum.

The Mantriam Central project is about 650 m along strike and about 400 m across strike of the ore body. The area is about 260 square kilometers. All the drill holes that were used to generate these solid model were RC holes. Sectioning, digitizing and the solid modeling methodology of estimation was used in the generation of the ore body at a cut off of 0.3 g/t Au.

3.2 Collar Properties

In all 398 (RC) holes were carefully selected in the drilling exercise. The selection was done in an unbiased sampling method taken care to include most of the local grid lines. Generally, drill holes are located/sited with hand held GPS with presumed accuracy of $\pm 1\text{m}$. After drilling the actual drilled location is marked twice and the mean taken to be the coordinate location of the collar. All holes are surveyed with a Flex survey instrument that measures downhole attributes such as azimuth, magnetic field, inclination and temperature at specified depths. These measurements are taken at three planned depths: 6 meters, 60 meters and 90 meters. These measurements are taken by the driller, during the advancement of the hole.

3.3 Rc Sampling and Logging

The drill chips from the RC drilling programme were collected in 1m intervals downhole via a cyclone which discharged into PVC bags. The collected samples were weighed prior to splitting and then were riffle split using a three tier Jones riffle splitter. A final sample of approximately 2.5 kg was collected for submission to the laboratory for analysis. The RC chip material was stored in trays which were systematically compiled and logged with all bulk rejects stored at the Teberebie exploration camp. The bagged 1m interval samples were submitted to Transworld Laboratories for analysis.

3.4 The Model within the Saprolite

Completely oxidised material logged as saprolite was modelled into the primary ore zone. The roughly flat lying body was modelled from the vertically drilled RC holes. The oxidized zone could be as deep as 60 meters in depth.

3.5 Definition Of Ore Zone

The methodology employed in this estimation study utilises a 3-dimensional wireframe model of mineralisation interpreted at 0.3 g/t Au sample cut-off grade, defined on cross sections on the drill fences. In all there are twenty three (23) sections contained within the Mantriam central model. There are six drill fences, the drill spacing is averagely 50 meters for the first four fences and 100 meters for the last two northerly fences. The southerly directed drilling however is a staggered grid fenced on averagely 40 meters having eight drill fences.

The process used in generating the 3-dimensional ore zone solids are as outlined in Figure 3.2 utilizing Gemcom's Surpac 3D software.

Individual sections were digitized on the drill fences at 25 meters centres/slices for the respective sections . These grade shells were generated using the 0.3 g/t Au cut-off at a composite length of 6 m or by intuition where the grade is appreciable where an intercept is seen as continuous on both adjacent sections.

In addition a 0.3 g/t Au grade cut-off seemed to provide a consistent and clearly visible pattern of mineralization which was helpful in defining reasonably fairly continuous ore zones especially where mineralisation is spotty.

This approach was achieved by joining the grades on individual drill holes by the various digitizing tools available in Gemcom Surpac 3D such as points, polylines and segments etc. The shells which by the software convention should be in clockwise direction were closed off after digitising each mineralised shell. Line validations approaches such as removing duplicate points/segments, duplicate points, crossover point, spikes, etc. were all checked. End of sections were closed off by either extension for half of the respective drill spacing where there are no drill holes or where there are drill holes, midpoint perpendicular to the drill hole.

The digitizing was all done based on the field geological information. Solid modelling was done by interactively connecting individual grade shells from section to section where applicable by using wireframe triangulation tools available in the Gemcom software.

The end of the solid is closed by extruding the solid halfway with regards to the drill spacing used and tapering it to the minimum grade intercept. Where grade continuity is visibly reliable, sections are joined to form grade solid models.

Once constructed, the shells were checked for spikes, duplicate faces, triangulation openings and self-intersecting triangles are all resolved by validating the solid.

Exploration data is captured in the local grid format with Arcgis being the preferred software used. Exploration Data Analysis (EDA) and the resource modeling work has been done in

Surpac with support from MS Excel and varfit softwares. Spatial data analysis (variography) is done in Surpac with some confirmations in Varfit softwares.

3.6 Resource Estimation Process

The database as received from GFGL was a well-kept data which has passed most database validation protocols. Cross validation done did not detect any serious issue to deal with in terms of data quality. Flow sheet presentations are shown in figures 3.1 to 3.3 which summarizes the various stages used respectively in the creation, modeling and validation of the resource estimate for the Teberebie Mantriem Central project.

3.6.1 Database Flow Chart

Every good resource estimation process starts with a good and a consistent database with high end integrity (Figure 3.1). This has been achieved quite easily due to the relatively small nature of the database. The database definition, mapping, review and auditing were all done in Surpac within the cross validation. The database has gone through Surpac's audit capabilities and underwent a thorough scrutiny checking data consistency and integrity. Checks were done to verify the end of hole (EOH) and the corresponding maximum depths as contained in the collar table with regards to the other attribute tables such as samples table, geology table and the survey table. No data validation issues with respect to the received database such as sample overlaps, duplicate samples and missing samples have been thoroughly checked and dealt with appropriately prior to the statistical analysis on the database.

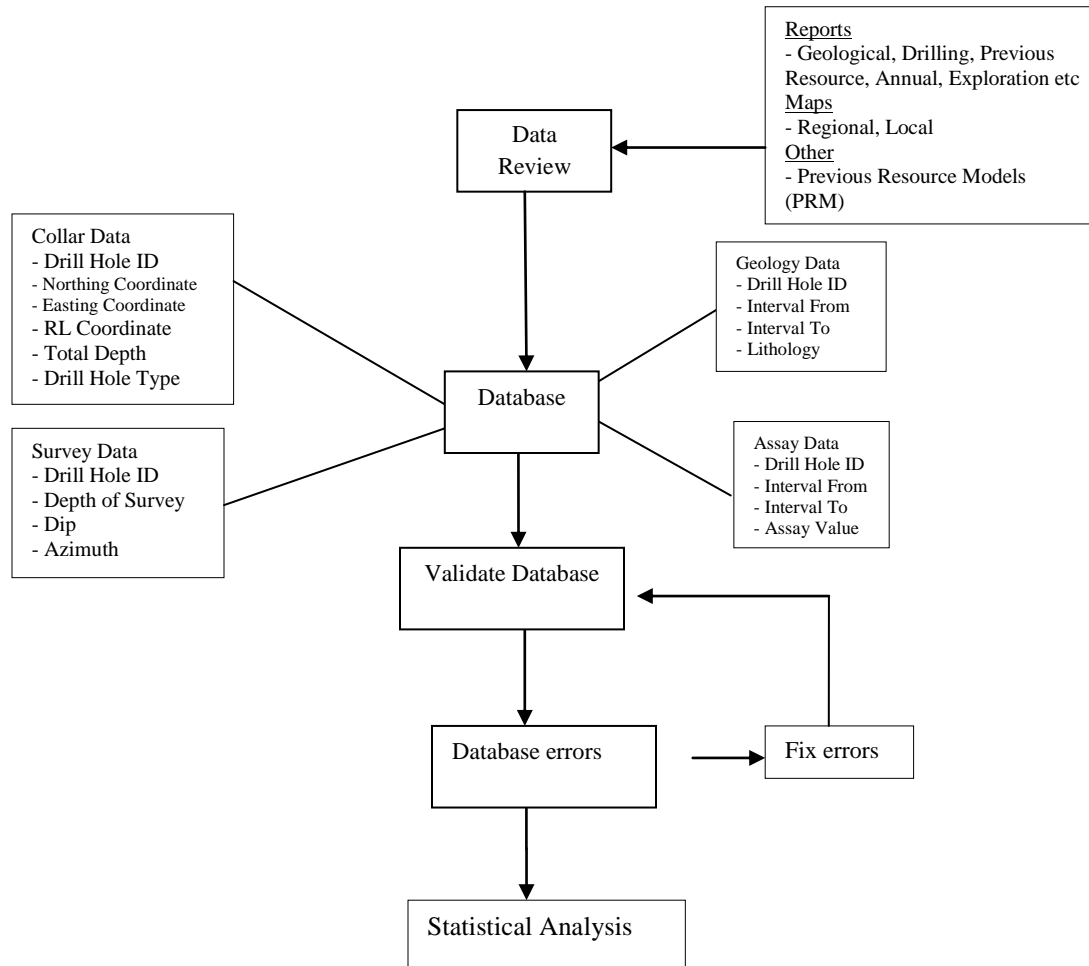


Figure 3.1: Database Flow Chart for ensuring data integrity (modified after Fieldgate (2009))

3.6.2 Solid Modeling Flow chart

The processes constituting the flow chart of the solid modeling (Figure 3.2) is as briefly illustrated below.

Prior to the commencement of the wireframe or solid modeling, a search distance of half the width of the major grid spacing of 12.5 m each section either side of the grid was decided upon to be used. The digitizing of the grade shells were done in 2-dimension (2D) space before the eventual interpolation into a 3-dimensional space. A lower cut off mineralised envelope of 0.3 g/t Au was used to digitize out the 2D grade sections. Minimum envelope width of 3 meters which includes 1m @ <0.3 g/t Au, where required to bulk out envelope to the 3 meters width.

With regards to this specific project (may not apply to the entire Teberebie project), maximum internal dilution of 6 meters has been allowed, unless interval comprises a broad envelope capable of being correlated. Uncorrelated grade intervals that were not able to be tied in and between sections were not digitized as grade polygons.

The digitizing direction that was used was the conventional clockwise direction with section facing northward.

All section envelopes have been extended midway between their respective drill holes. When the envelope ends, the median slope of the surrounding drill holes have been used to determine the end shape of the envelope. No mineralized grade envelope has been ended perpendicular to the grid, the halfway rule has been used to end all mineralized grade envelopes between drill holes. I have employed the same approach to end sectional envelopes beyond drill holes. In cases where an envelope has not terminated between drill holes, the envelope has been extended half the section width of the last drill hole intercept at the apparent dip of the overall envelope. Unless the mineralised envelope is supported by intercepts on previous sections. In which case the envelope has been extended down to the level supported by other sections. All envelope ends

have been set to taper. No tapered end was <5 meters wide, which is the minimum envelope width.

Triangulation has been achieved by joining individual adjacent into solid model constrained by the grade intercepts of the individual drill holes. With the bifurcation as was the case in some of the solids, copies of the un-bifurcated envelopes were placed half way between sections, these were used as the joining point between the bifurcations and the main body of the envelope. This minimized the input of waste material into the model.

After adhering to all the above mentioned protocols I made sure the mineralised solid was consistent with the grade distribution by superimposing it with the raw assay display. After achieving this satisfaction with the model, I validated the individual grade polygons to be sure I have been able to generate solids without openings.

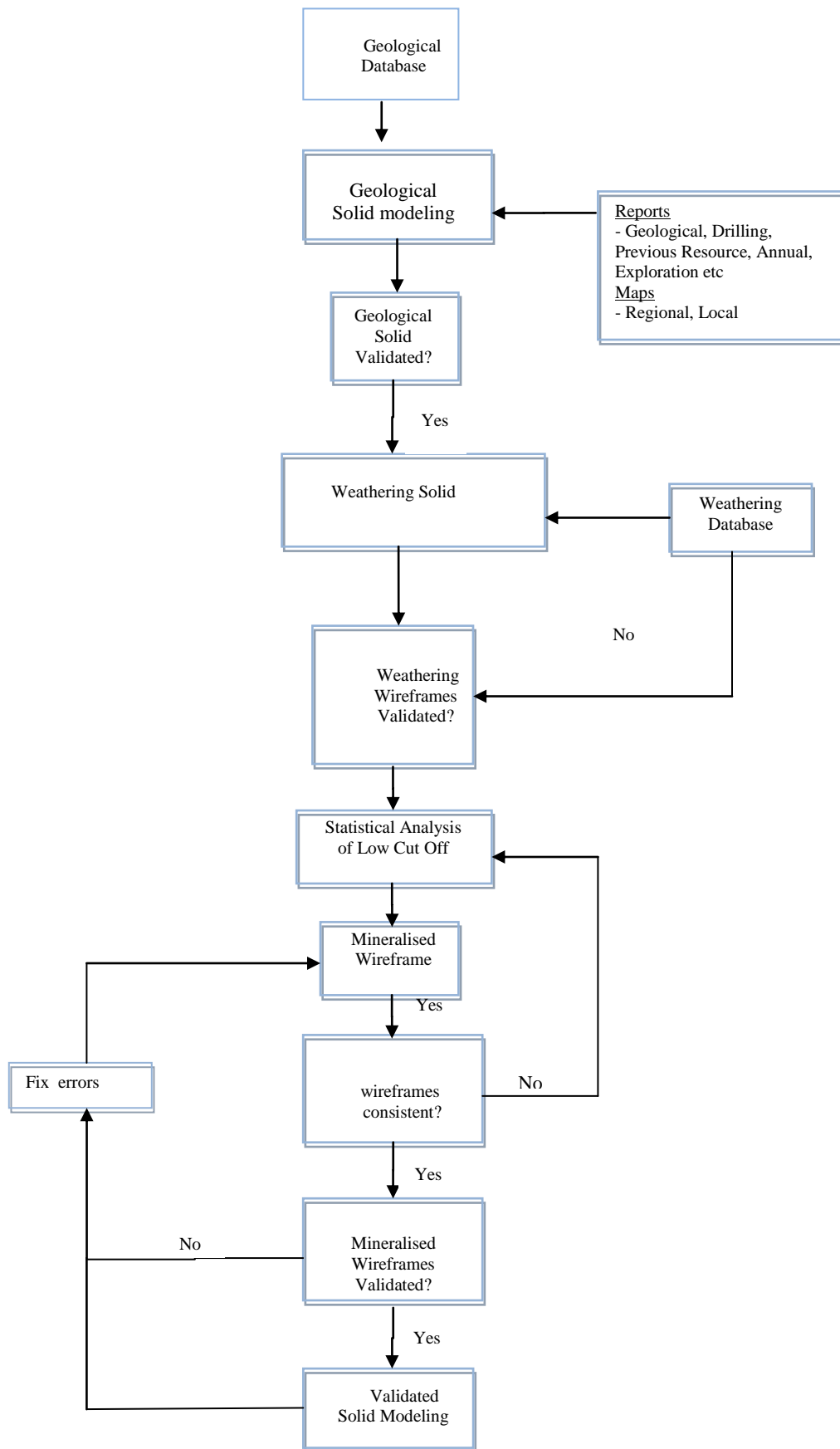


Figure 3.2: Wireframe flow chart (modified after Fieldgate, 2009)

3.6.3 Spatial Analysis Flow chart

Spatial analysis has been done to establish the relationship between sample points at varying distances apart, and to establish a level of confidence in the estimation of grade at any point between sample locations. The variogram analyses was also performed to assist establish the major directions of continuity and to provide the variogram parameters required for geostatistical grade interpolations.

A search region or ellipse was defined based on observed directional grade continuity, and this was achieved having a crucial consideration for the geological observations.

Downhole and directional variograms were produced and modeled for the Mantriam model.

Data compositing was done within the validated wireframes to enable for statistics to be performed on the composited dataset. Histograms of the composited data were produced to visualise the data distribution both in the normal histogram and log transformed mode. The data exhibited positive skewness. However, the positive skewness was as a result of the presence of some few extreme values otherwise known as outliers and not by mixed populations. Outliers concentrate in the zone of erratic grade distribution on the histogram resulting in the positive skewness.

After further statistical analysis on the composited dataset, the co-efficient of variation (COV) was found to be higher than the industry standard of between 1.0- 1.2 (Coombes, 2008). The high COV was indicative of the need to apply a top cut to the dataset. This was achieved by using Surpac string maths by the following expression $D7 = \text{iif}(D1 > G1, G1, D1)$ which implies that "if and only if $D1 > G1$, cut it back to $G1$, if not it retains the initial value, where $D7$ is the field where the composite gold values are stored and $G1$ is the gold grade at which the top cut has been set.

After the treatment of the outlier values, the composite data was then set for the spatial modeling. The spherical model was selected due to its rigidity and the importance of the nugget variance to this estimation. The spatial modeling is a very important aspect of the estimation process in that it presents an understanding on how samples relate to each other spatially and then use this information to infer how samples may relate to a location that has not been sampled. This information has been used to build up an estimate of the block grades. The objective for the spatial analysis is to establish a model of grade variability in 3D, which in turn controls the model weights during Kriging estimation. Figure 3.3 shows the various stages of performing spatial analysis modeling.

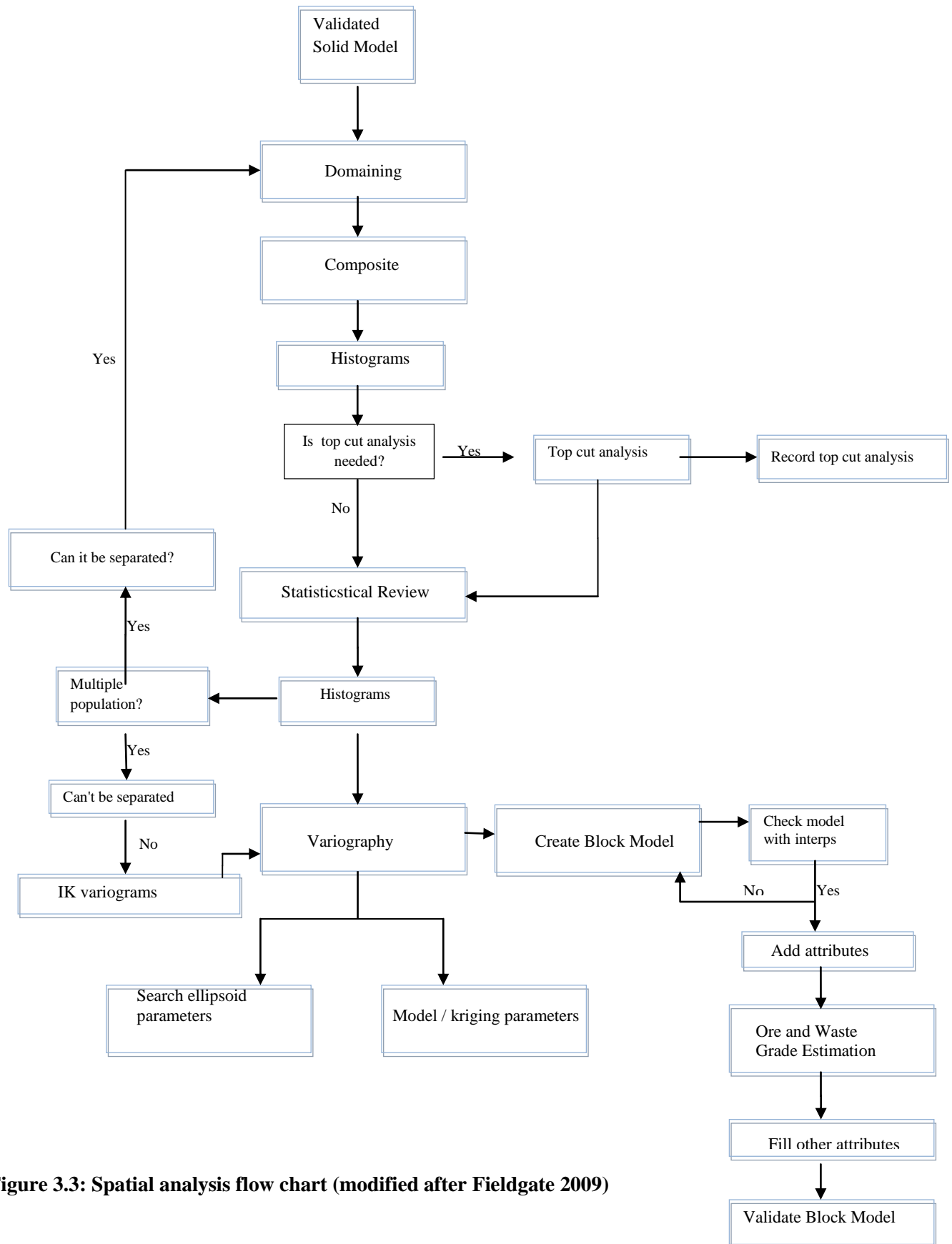


Figure 3.3: Spatial analysis flow chart (modified after Fieldgate 2009)

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Results

The results for this project are presented in figures, tables and pictorial form. Most of the calculations were average representations of the entire data.

4.2 Data Analysis and Validation

The Mantraim central project is a part of the main Mantraim project which has seen enormous drilling up to grade control (Figure 4.1). The central portion of the project under study is also known as the Mantraim Central and is made up of a distinct 10° - 18° dipping east ore reef and striking almost north-South (Figure 4.2).

All the drill holes used in this analyses have been drilled by Reverse Circulation (RC).

The drilling within the confines of the project provided an overall total of approximately 13,721 gold assay intervals emanating from 398 RC holes. The generated ore model resulting from the modeling of the mineralised grade intercepts within the central main zone constitutes a 11,297 assay samples from 390 drill holes (Table 4.1). The boundaries of the mineralised gold intercepts which represents anomalous gold values above the specified threshold were used to begin the definition of “in-situ” grades and subsequent block model calculations within the Mantraim central project. A threshold value of 0.3 g/t Au mineralised grade shell has been used as the main geostatistical domain for the evaluation.

A regularized grid of 25 m x 25 m has been drilled closing in on the previous 50 m x 25 m pattern which yielded the first indicated resource at the Mantraim Central project area. Likewise

other projects around the area of study, the flat lying nature of the orebody made vertical drilling the preferred orientation for intersecting the orebody at the desired angle and depth. A single geostatistical domain has been used for all subsequent analysis. Quality control-quality assurance reports were reviewed and the data was deemed suitable for the subsequent resource evaluation to be carried out.

Drill holes have been logged and samples assayed and maintained in Microsoft excel for easy editing and then migrated into access database for data management and storage. Section_23, active of this project is to estimate the gold resource of the central Mantraim project and make recommendations based on the resource outcome.

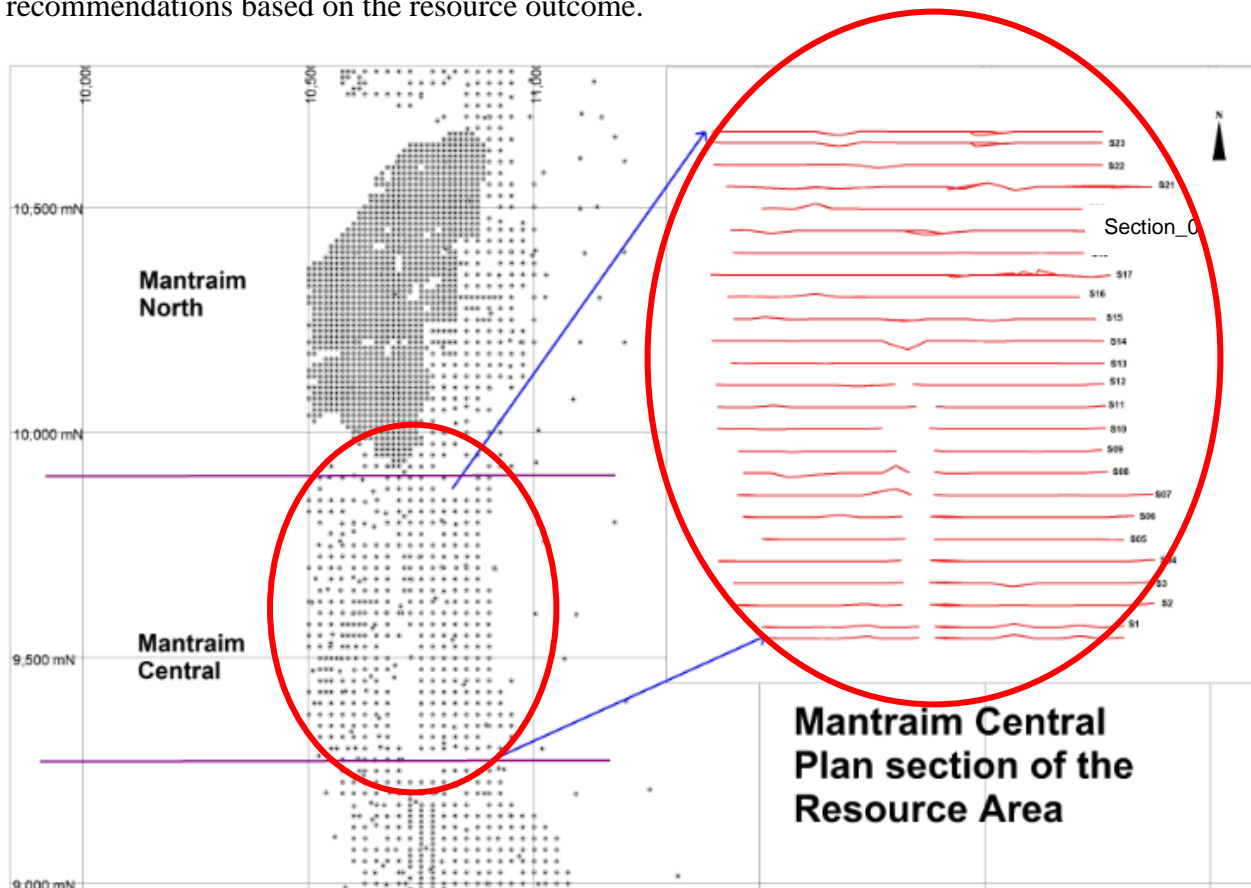


Figure 4.1: Mantraim Project in plan, showing the north, central and south designations

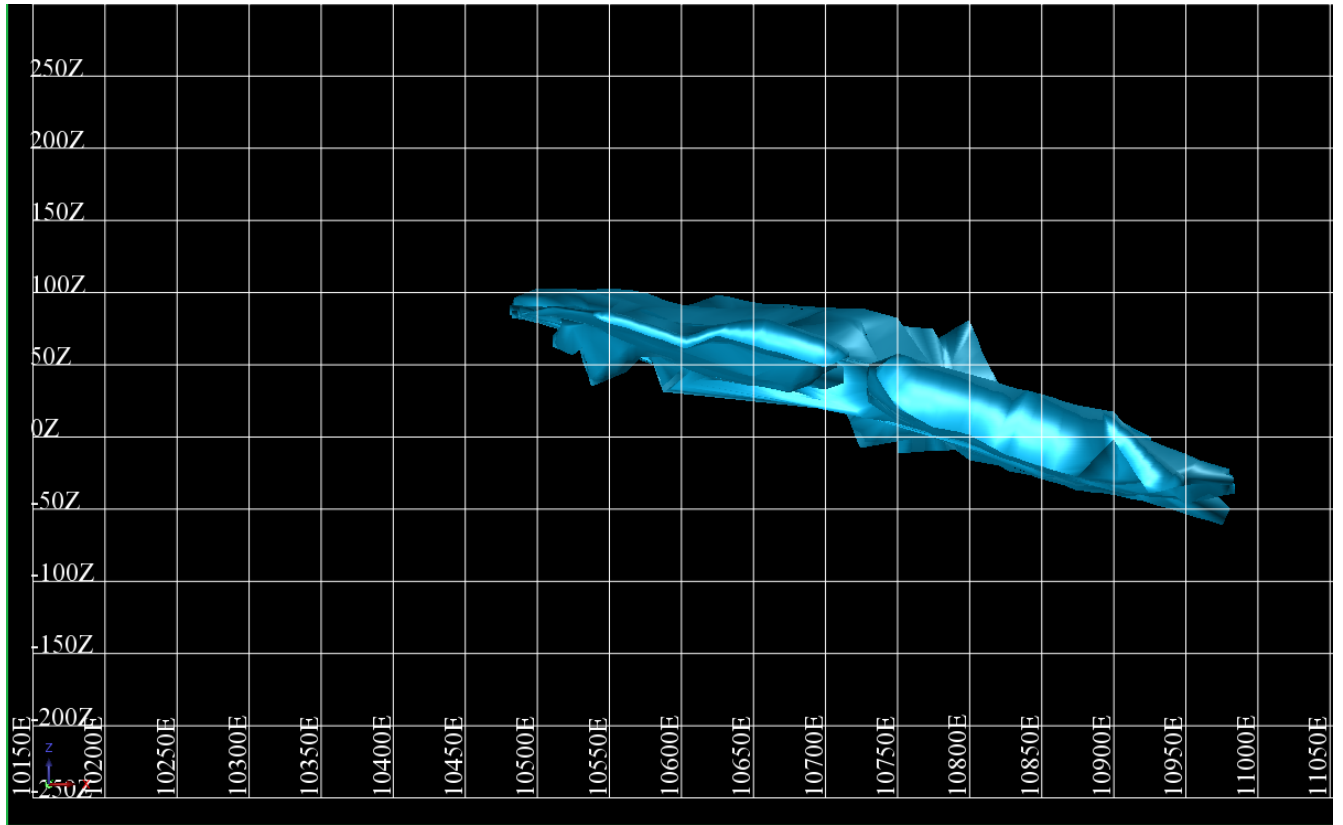


Figure 4.2: Sectional view of the Mantraim Central ore model

Table 4.1: Descriptive statistics of the raw data as obtained from the database

	No_Holes	No_Samples	Mean	Median	Min	Max	Std_Dev	CV
Raw	398	13,721	0.902	0.47	0.01	22	1.389	1.54
Intercepts	390	11,297	1.031	0.48	0.01	22	1.282	1.326

4.3 Model Generation

The anomalous gold intercepts have been constrained and interpolated by the development of wireframes modeled at 0.3 g/t Au threshold grade cutoff at an average dip of 15°. Grade pods were extrapolated approximately halfway beyond the limiting drill section for both the down dip

and along strike. The interpretation was completed based on both visual and statistical geological review of the dataset and has captured majority of the anomalous intercepts within the mineralised margins.

In all, twenty three (23) drill sections have been designated and the mineralised intercepts carefully captured and modeled out. Presented in Figures 4.3 through 4.7 are selected sections used to generate the model in Figure 4.8.

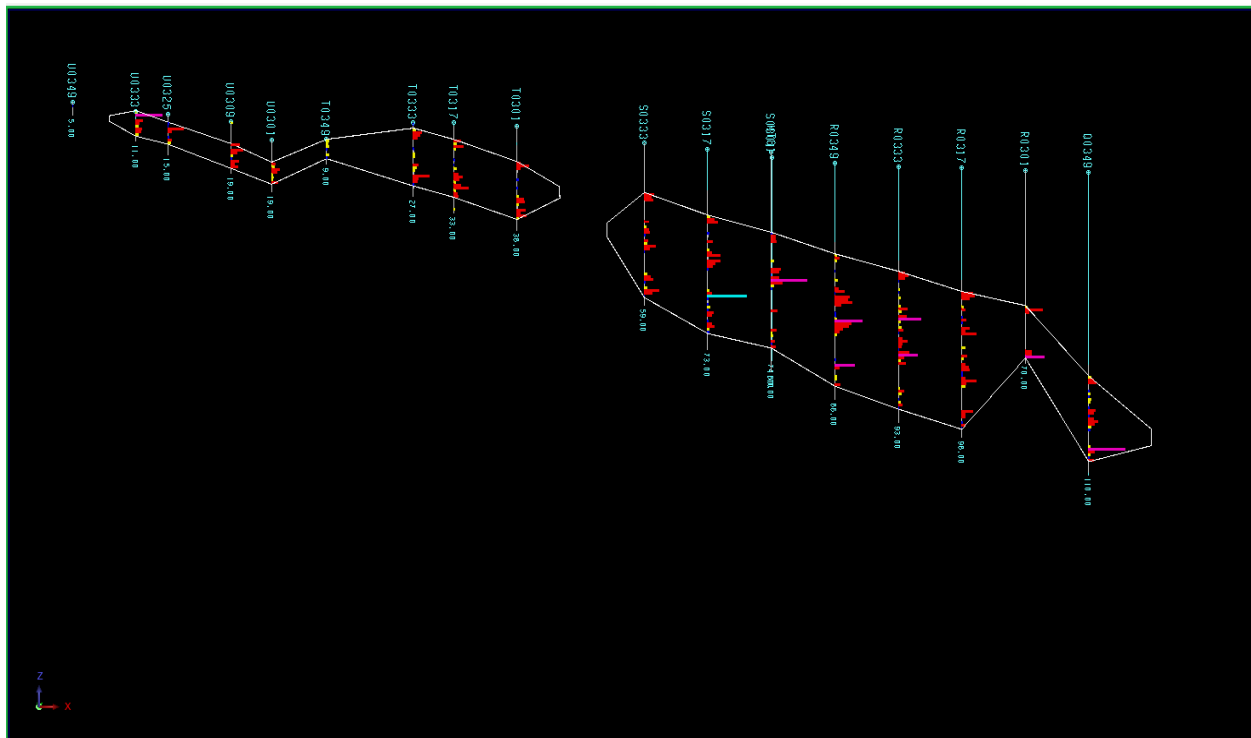


Figure 4.3: Section_01 showing mineralised outline of gold intercept

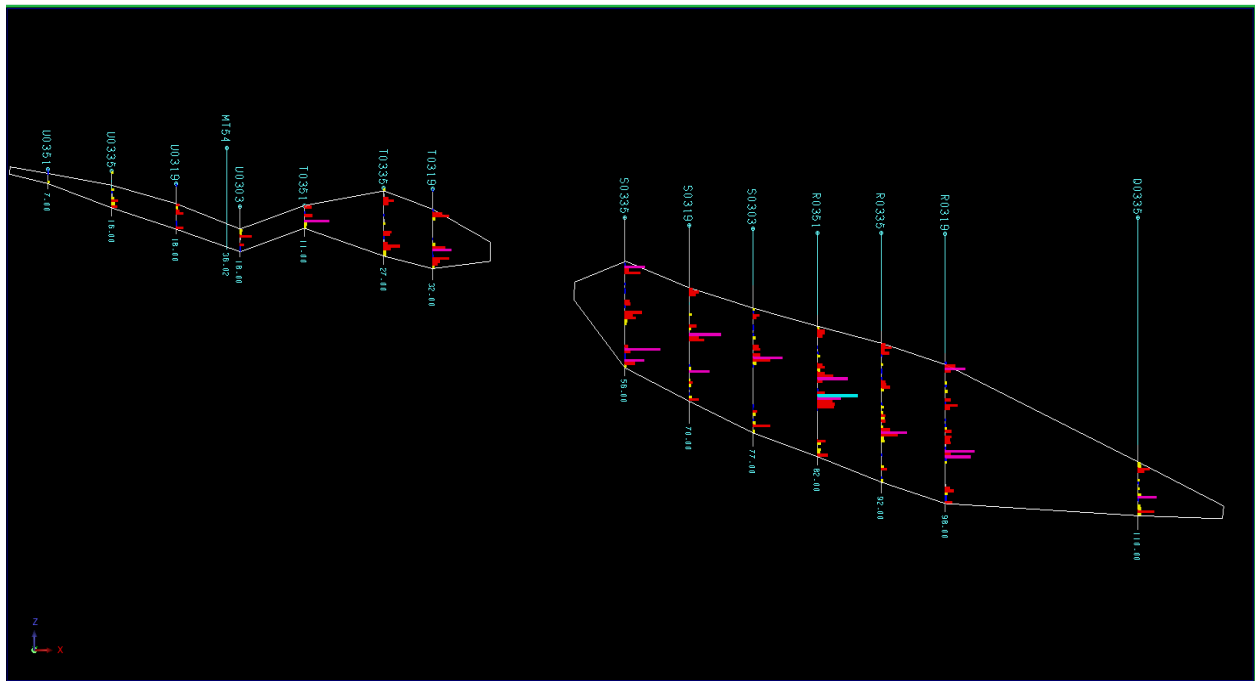


Figure 4.4: Section_02 showing mineralised outline of gold intercept

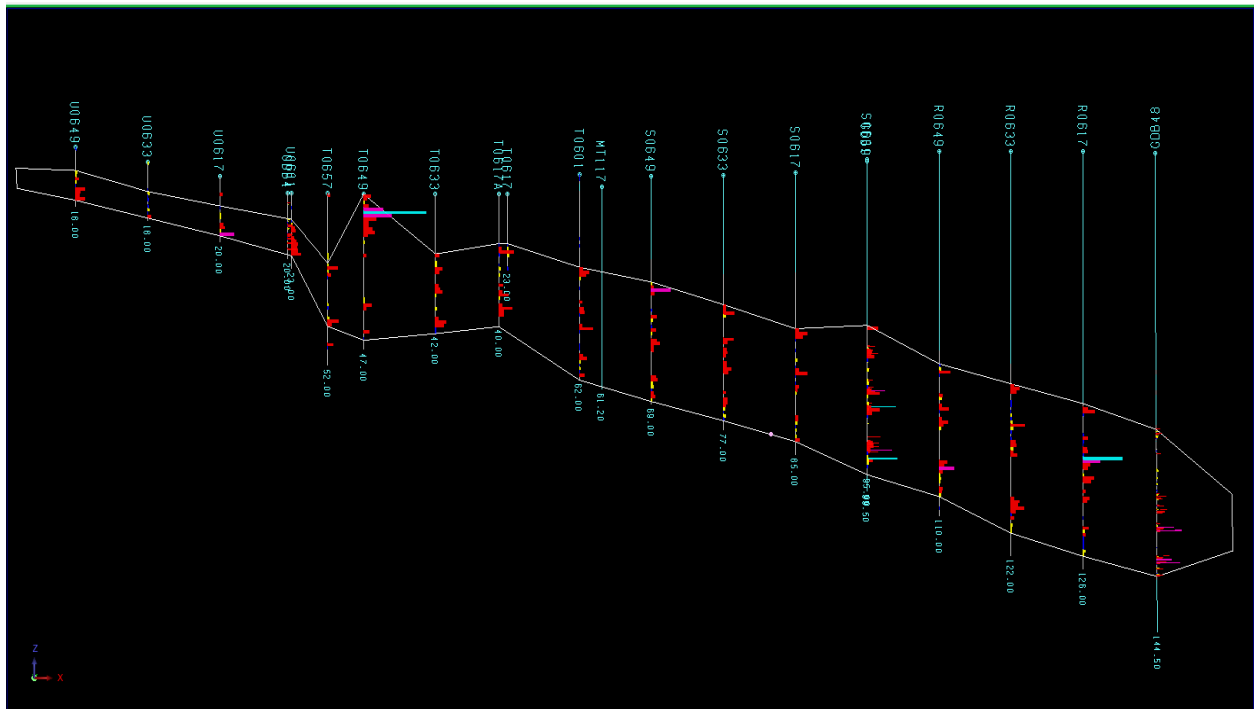


Figure 4.5: Section_13 showing mineralised outline of gold intercept

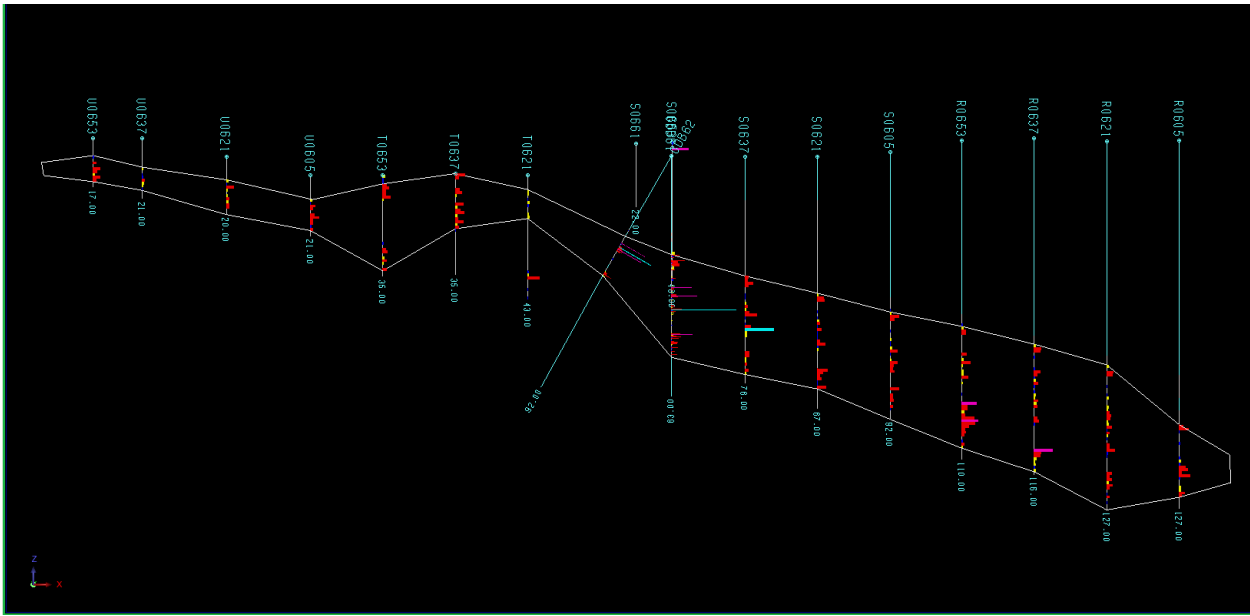


Figure 4.6: Section_15 showing mineralised outline of gold intercept

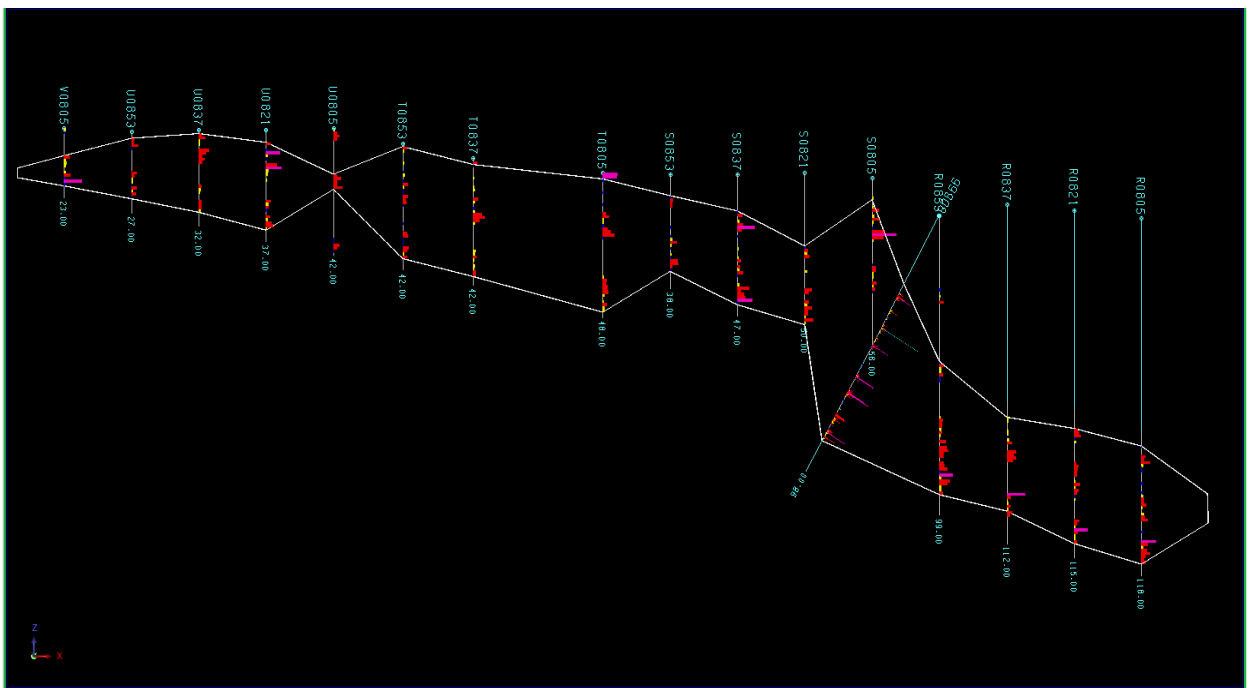


Figure 4.7: Section_23 showing mineralised outline of gold intercept

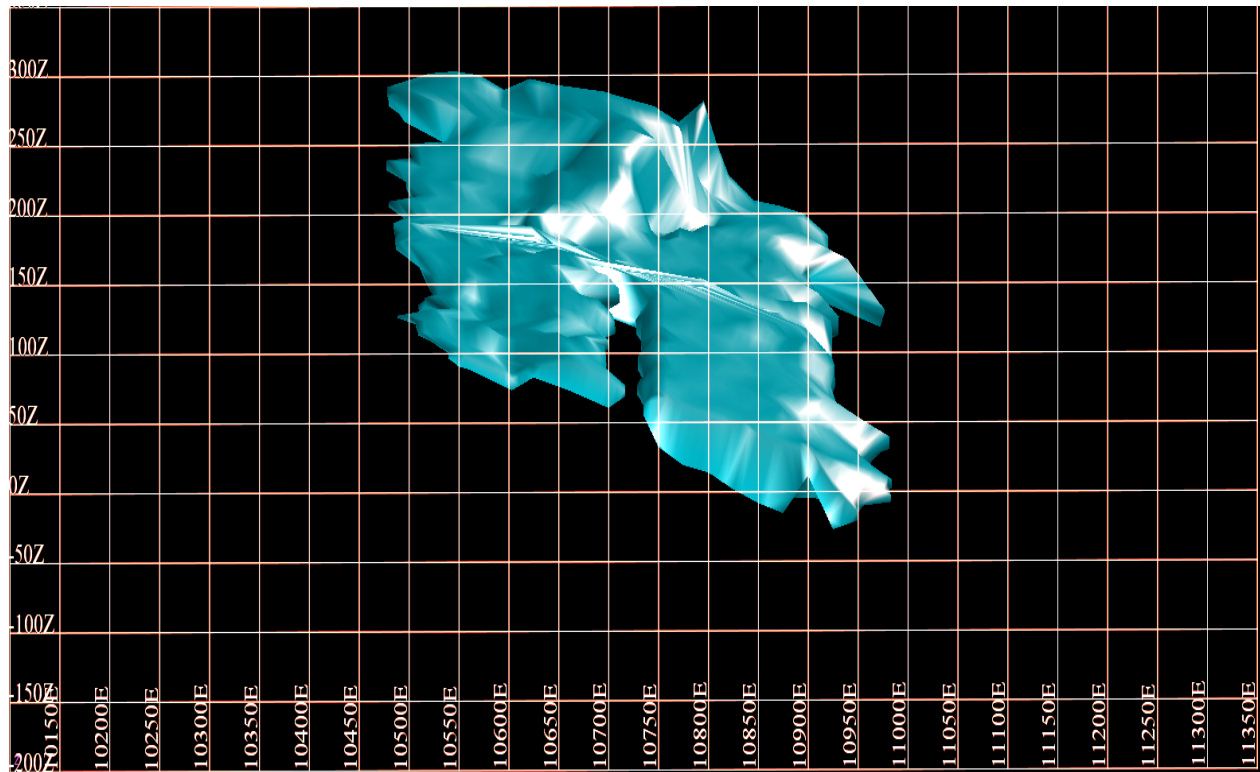


Figure 4.8: Mantraim Central geostatistical grade model

4.4 Statistical Analysis

Statistical analysis was undertaken to establish the difference between sample populations and to establish the suitability of the grade interpolation methodology to use. Univariate analysis of the composite data, from within the modeled ore solid, consisted of summary statistics, log-normal probability plots in combination with histogram plots for the data (Figure 4.10).

It was based on this analogy that suitable topcut was selected. By industry standard any dataset that has a coefficient of variation (cov) greater than 1.0 must be cut to take care of the extreme values which tend to skew the data distribution shown in Table 4.2, the raw composite data had a cv of 1.326 whereas after the topcut the cv dropped significantly to 0.96

Table: 4.2: Summary statistics for the raw and top cut composites datasets

	No_Holes	No_Samples	Mean	Median	Min	Max	Std_Dev	CV
Raw_comp	390	11,297	1.031	0.48	0.01	22	1.222	1.326
Top_cut_comp	390	11297	0.914	0.4788	0.01	8	0.878	0.9631

4.5 Outlier Treatment

Histograms and Log probability plots showed the presence of some extreme values otherwise known as outliers. Outliers can cause "noisy" experimental variograms, which are difficult to model. Additionally, if not dealt with properly in an estimation, outliers can result in unrealistic results. The variogram top cut top cut was used to cut extreme values from the data to be able to have a smooth variogram modeling and subsequent estimation. Statistical analysis of the data showed that few outliers which as a result affected the coefficient of variation. The data was unimodally distributed as shown in figures 4.9 and 4.10 respectively.

Based on the statistical analysis from the assay data from which the geostatistical domain was established, a top cut of 8 g/t Au was chosen.

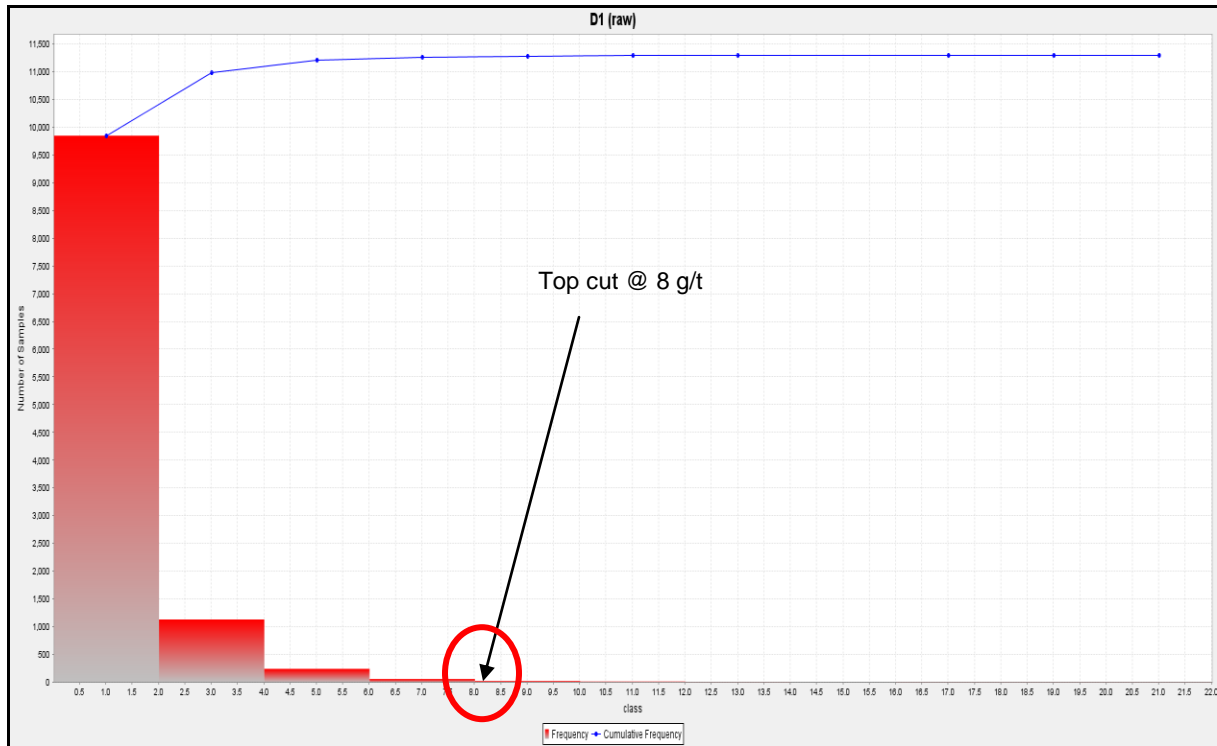


Figure 4.9: Top cut application (majority of the data occur between 0 - 9 g/t Au).

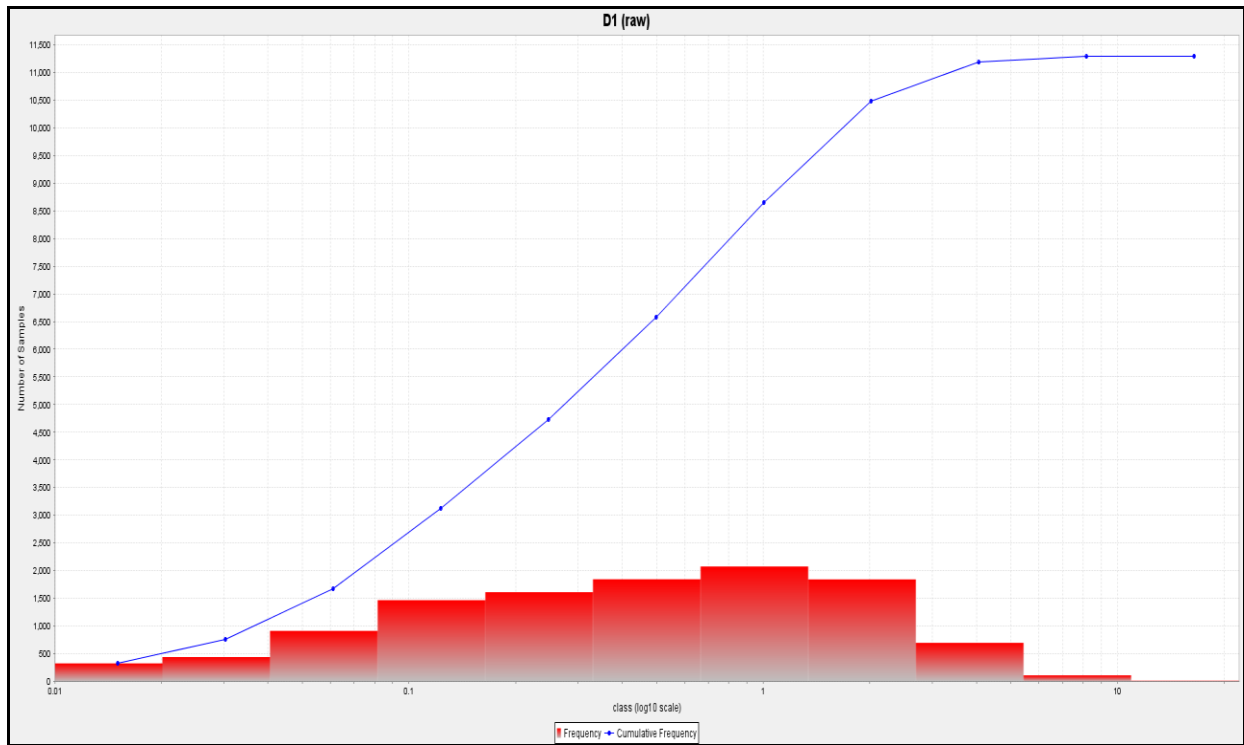


Figure 4.10: Probability plot showing data is unimodally distributed

4.6 Sample Composite

After a careful consideration of the sample interval length and the geometry of the mineralised ore body, a 1 m sample composite length was adopted. For subsequent analysis and estimation, the raw samples were extracted from the drill hole database using the modeled mineralised solid constrained with the threshold lower cutoff of 0.3 g/t Au and then composited to the adopted 1 m intervals within these zones, with a minimum composite length of 0.5 m. Also retained in the analysis of the ore model was the residual composite lengths, and this ensured no loss of data. This declustering method is to ensure the samples have equivalent effect on the samples statistics.

4.7 Spatial Continuity Analysis

Spatial continuity analysis was completed on the 1m composite for the ore solid model. Separate variograms were modeled for the domain in both downhole and directional manner. Downhole variogram modeling using the composite length of 1 m established the nugget effect of the data to be around 0.34 (Figure 4.11).

The downhole variograms for the main ore body has generally short primary ranges <60 m (Figure 4.12). The down dip directional data showed relatively decent continuity. The modeled range for the major axis also known as the primary variogram was 58m (Table 4.3) whereas that of the semi-major or the secondary variogram was 45 m (Figure 4.13).

In fitting the variograms, the spherical and exponential models were considered. The spherical model was selected due to its rigidity and the importance of the nugget variance to this estimation. In order to arrive at this selection, various potential variogram models were constructed based on different parameters and after comparing the outcomes, the best-fit

variogram which turned out to be the spherical model was selected for the subsequent spatial analysis. The modeling of the variograms became fairly easy after the outlier treatment removing the few extreme values that may otherwise have introduced some noise into the spatial continuity analysis.

Table 4.3: Variogram Model Parameters for the model

Domains	Mantriem Central Drilling												
	Nugget	Rotation			Structure 1				Structure 2				
	(C ₀)	(dip/dip drx)			Sill1	Range (m)			Sill1	Range (m)			
		Major	Semi	Minor	(C ₁)	Major	Semi	Minor	(C ₂)	Major	Semi	Minor	
Grade Variography Au(g/t)													
Orebody (Dom 1)	0.34	0/30	-10/120	-80/300	1.33	58	45	25	0	0	0	0	

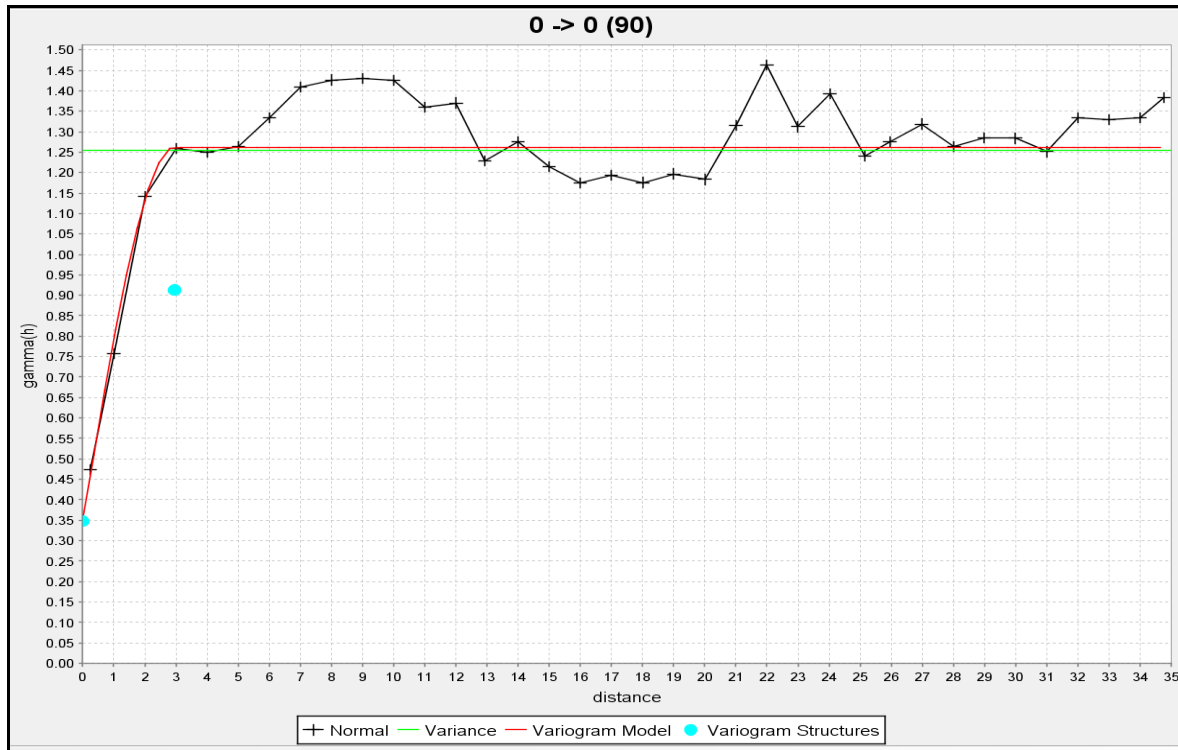


Figure 4.11: Nugget effect variogram model (spherical model)

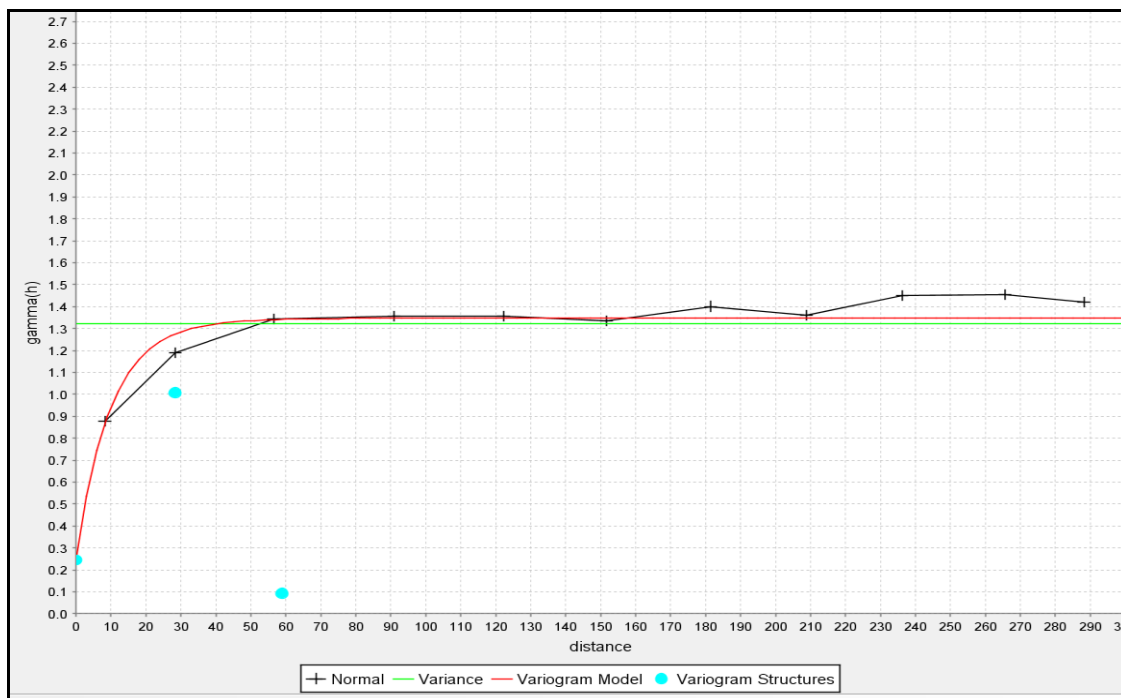


Figure 4.12: Variogram model showing the major axis for the Mantraim project

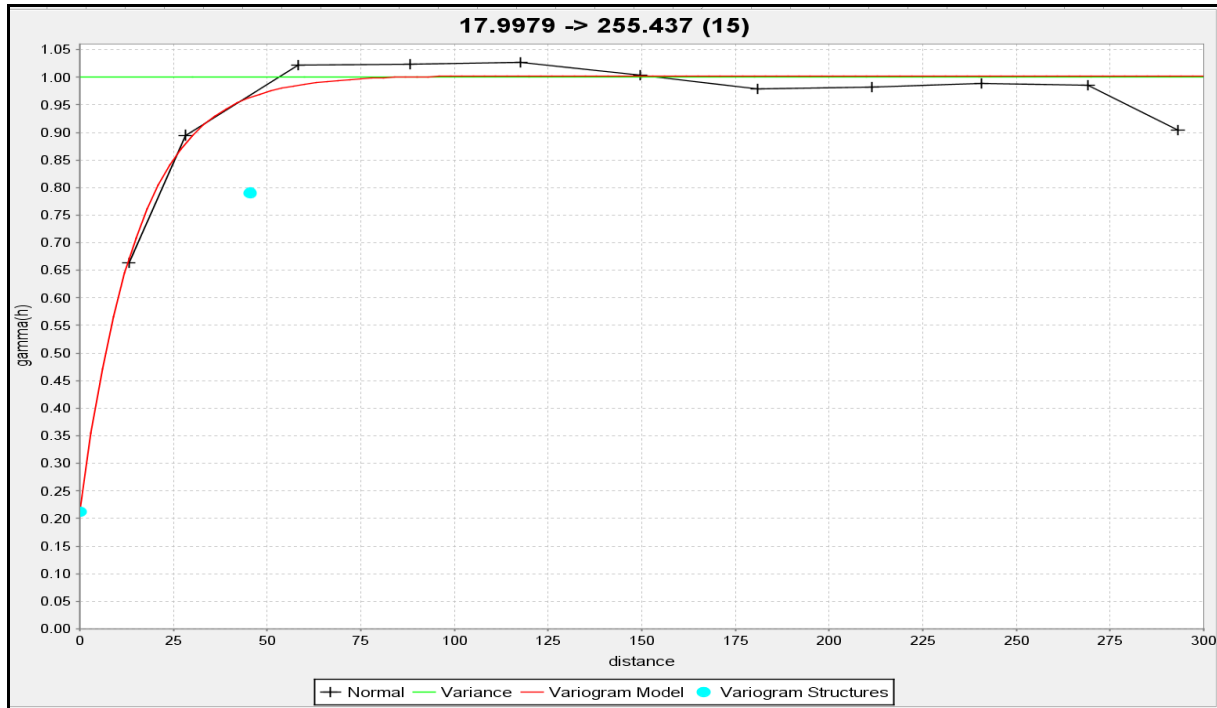


Figure 4.13: Variogram model showing the semi-major axis for the Mantraim project

. 4.8 Grade Estimation

Table 4.4 shows the parameters used in the generation of the block model for the Mantraim dataset (Figure 4.14). Grade estimation was completed in multiple iterations using Ordinary Kriging "OK" (Figure 4.15). Validation checks of the "OK" model were also conducted with other modeling algorithms such as Inverse Distance Weighting to the 2nd Power ("IDW") and Nearest Neighbour (NN) for each drilling direction. The model estimate was completed in three pass with expanding searches for each pass.

Table 4.4: Block Model Parameters for the model

	East	North	Elevation
Minimum Coordinates	10,400	9000	50
Maximum Coordinates	11000	9900	150
Parent Block Size(m)	10	10	5
Minimum Sub-Block Size(m)	2.5	2.5	1.25

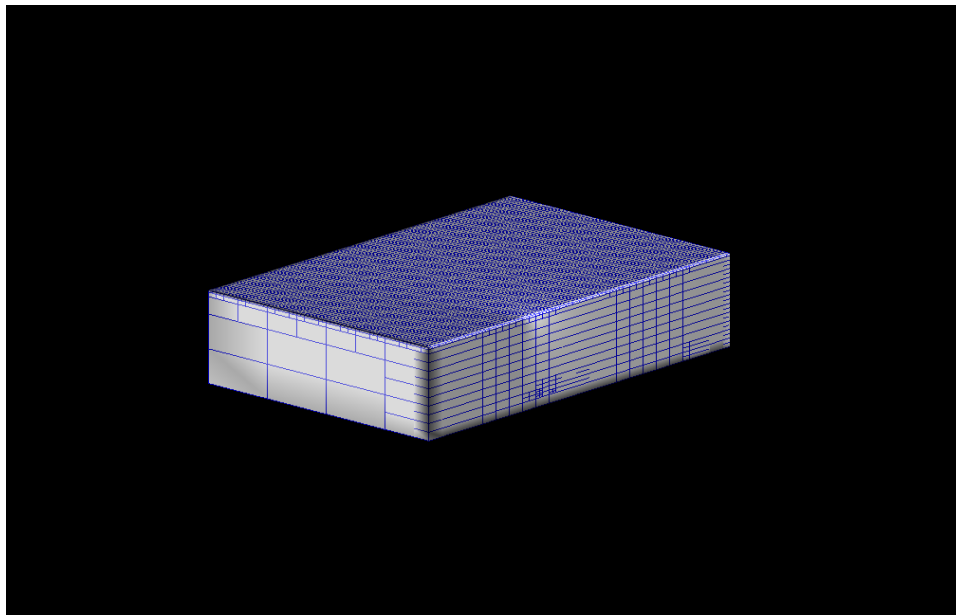


Figure 4.14: Regularized block model defined by the block input parameters

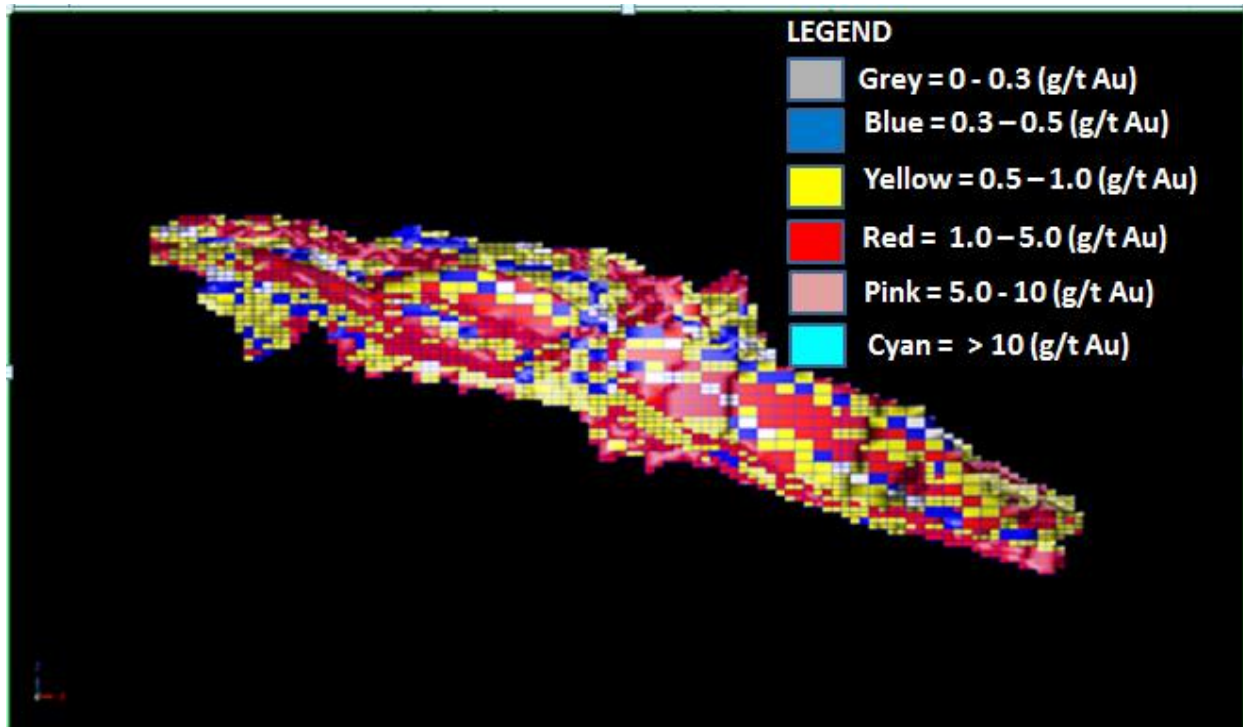


Figure 4.15: Block model colour coded by the Au_ok attribute (Grey=0-0.3, Blue=0.3-0.5, Yellow=0.5-1, Red=1-5, Pink=5-10, Cyan=>10 g/t Au).

4.9 RESOURCE REPORTING

The resource estimate generated for the Mantraim Central deposit based on the Ordinary kriging methodology taking account the top cut value of 8 g/t is shown in Table 4.5.

4.10 Model Validation

For model validation, Inverse Distance Weights (IDW²) model which utilized the same search criteria as the OK estimate was completed. The IDW² estimate was used for comparison of summary statistics in the block model and in the trend analysis plots for the OK.

Model validation also consisted of visual inspection of cross-sections of the blocks with the raw composite assays. The model validation process included the visual examination of block model versus composites, and the building up of a model grade outline through trend analysis to

compare average grades on vertical slices, as derived from the composites directly as well as from the interpolated model grades.

The model has been checked to see if they have been efficiently Kriged using model files created with efficiencies.

Visual examination validation of the estimated block model and gold grades in cross section and level plan was done (Figure 4.16 - 4.20). This involved sectioning the estimated block model and comparing the vertical sections with the raw drill hole composite grades. By comparing interpolated grade within the kriged blocks and the raw composite assays suggest a good correlation and subsequently shows that the blocks have been efficiently kriged

Trend analysis consisted of presenting the OK, IDW² and the composite grades on a swath plot using a common northing (Figure 4.21). Swath plots compare the mean values from the OK, IDW² and the composite data estimate for blocks for 25 m increments (or swaths) in north-south direction.

Generally the swaths show a better pattern agreements for the various estimations and the raw composites.

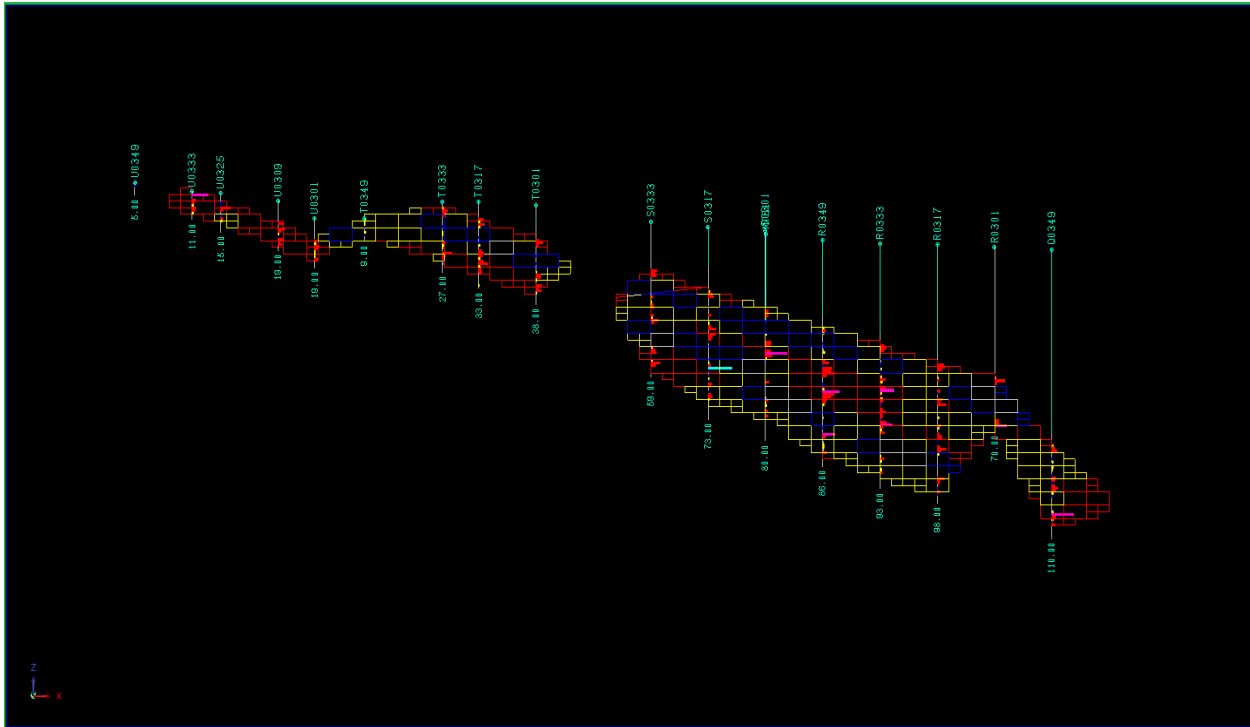


Figure 4.16: Representative section_01 comparing block grades and drill hole composites.

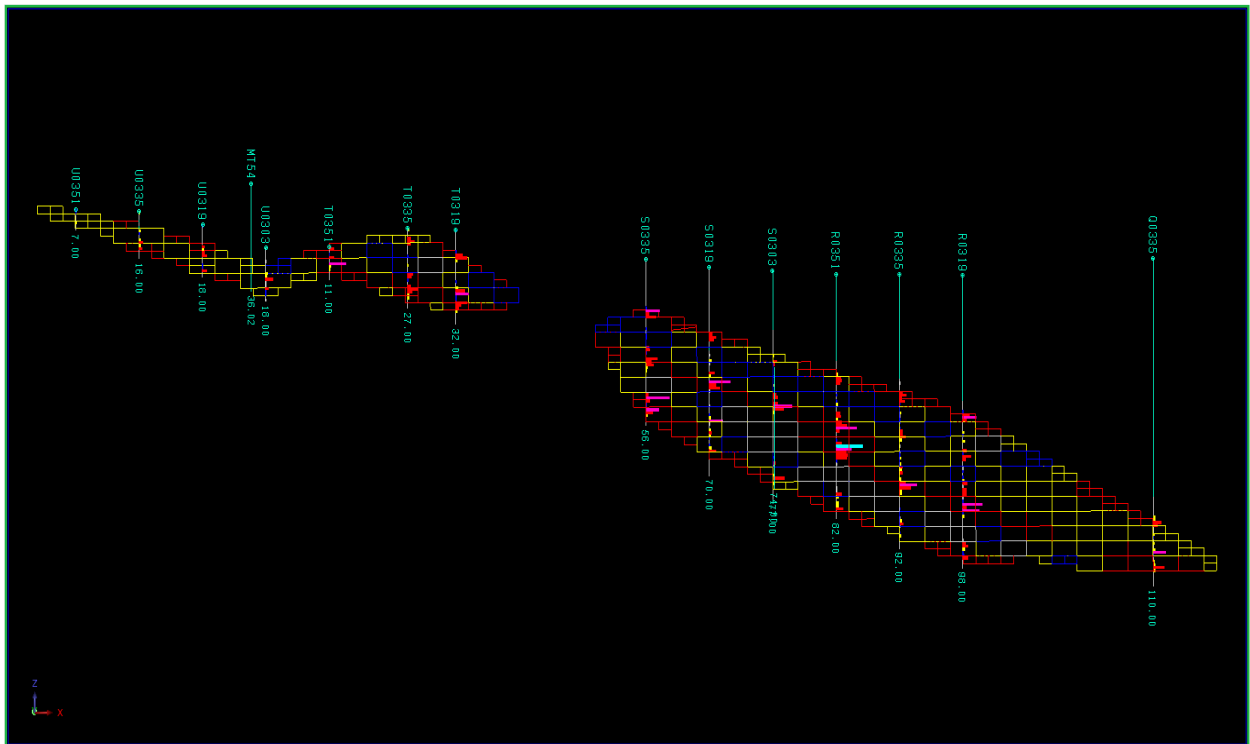


Figure 4.17: Representative section_02 comparing block grades and drill hole composites.

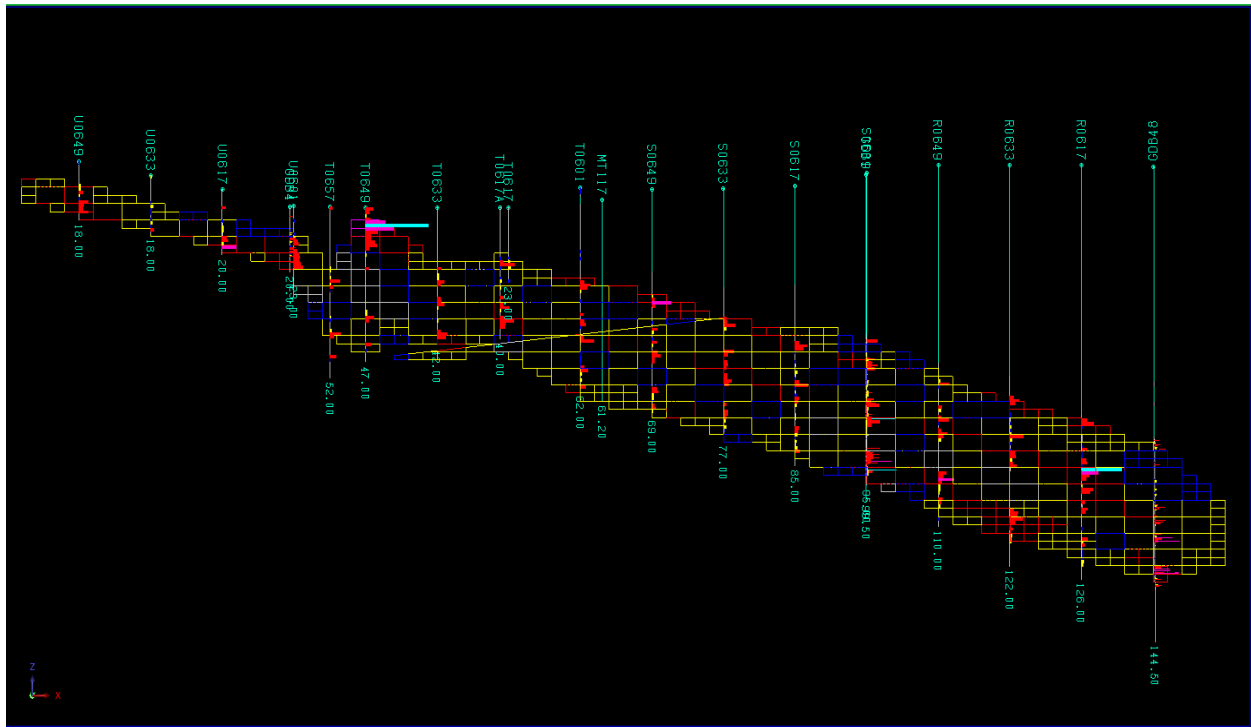


Figure 4.18: Representative section_13 comparing block grades and drill hole composites.

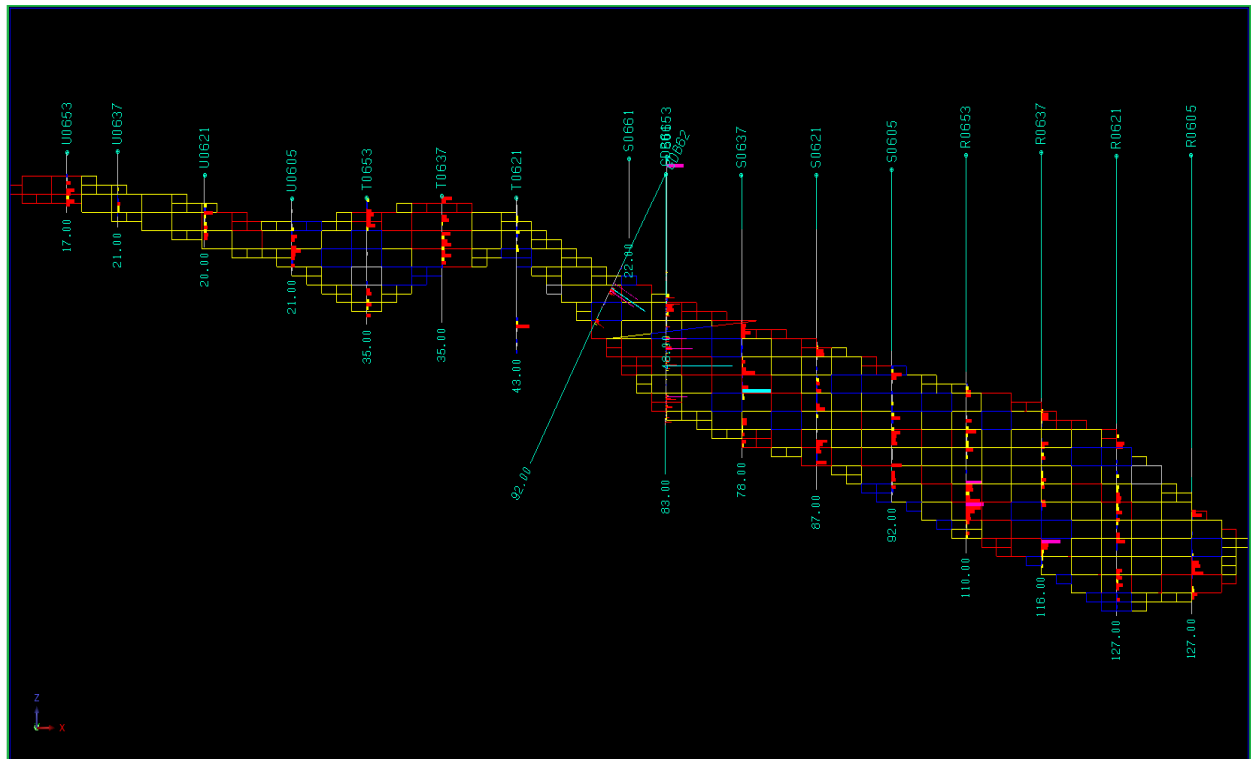


Figure 4.19: Representative section_15 comparing block grades and drill hole composites.

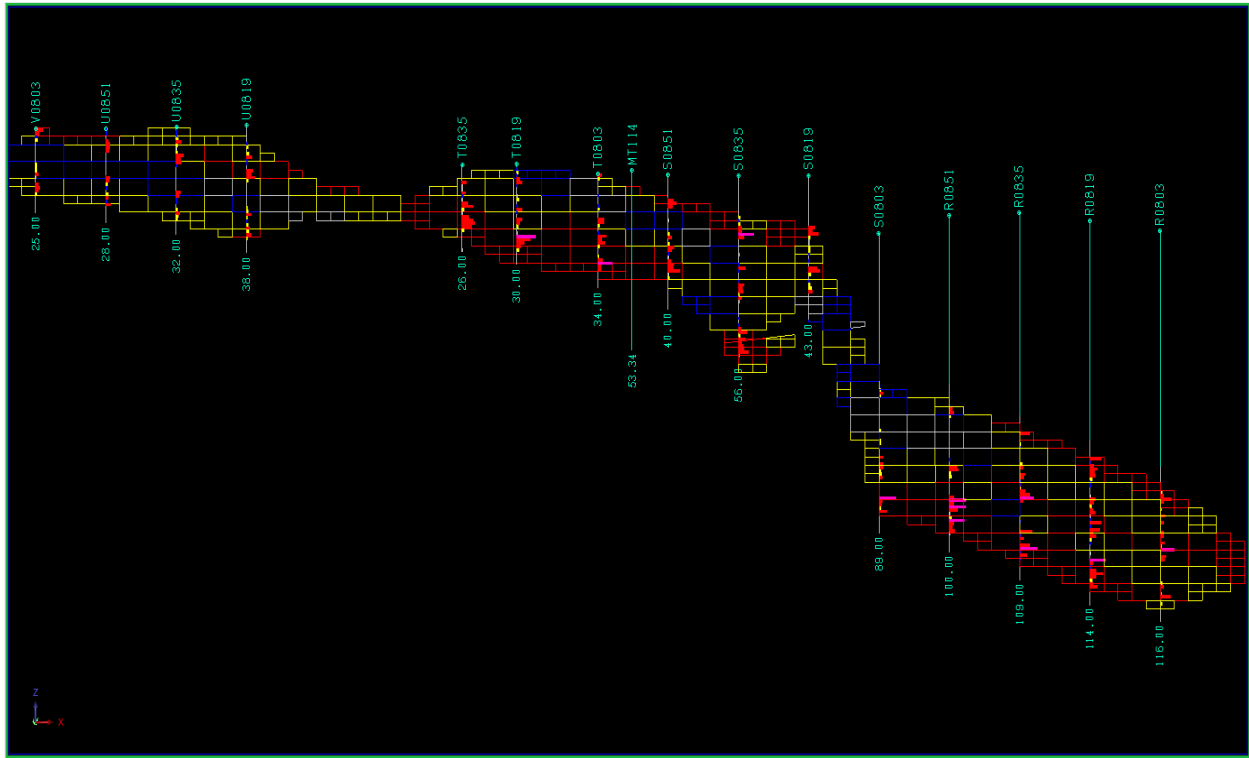


Figure 4.20: Representative section_23 comparing block grades and drill hole composites.

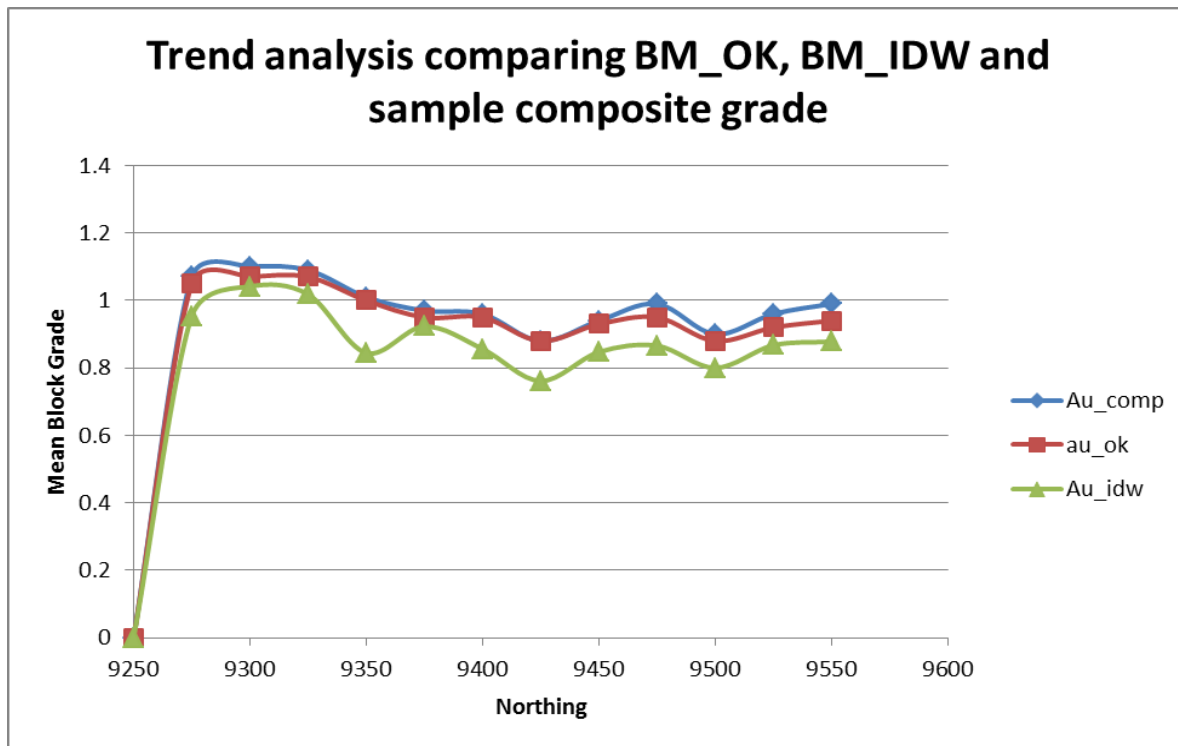


Figure 4.21: Swath plot for comparing the mean grades of OK, IDW² and the composite data.

Table 4.5: Resource Estimate (25 m x 25 m Grid) of Teberebie's Mantriem Central Deposit

COG	Volume	Tonnes	Average Grade (g/t)	Ounces
0.3 -> 0.5	794,438.00	1,986,094	0.4	25,541
0.5 -> 1.0	2,447,875.00	6,119,688	0.76	149,530
1.0 -> 5.0	2,680,063.00	6,700,156	1.44	310,194
5.0 -> 10.0	1,750.00	4,375	6.07	854
Grand Total	5,924,126.00	14,810,313	1.02	486,119

Table 4.6: Historical Resource Estimate (50 m x 50 m grid) of Mantriem Central Deposit

COG	Volume	Tonnes	Average Grade (g/t)	Ounces
0.2 -> 0.5	528,300	1,320,750.00	0.2	8,493
0.5 -> 1.0	2,135,800	5,339,500.00	0.65	111,583
1.0 -> 5.0	2,420,800	6,052,000.00	1.02	198,465
5.0 -> 10.0	1,205	3,012.50	4.23	410
Grand Total	5,086,105	12,715,262.50	0.780212589	318,951

1 Ounce of gold = 31.10385 g/t Au

4.11 Discussion

The ordinary kriging estimate has been performed using different cut off grades to evaluate the various effects of the specific grade cuts on the estimates. Presented in Table 4.5 are the results of the estimate of the Mantriem Central deposit using the current drilling grid of 25 m x 25 m. This estimate has seen tremendous improvement of the previous estimate done on the 50 m x 50 m grid Table 4.6. The inferred 50 m x 50 m resource estimate has now been improved to an indicated resource estimate based on the current 25 m x 25 m drilling.

By comparison the current estimate has confirmed the lateral continuities in the deposit as shown in the volumes and tonnages of the results. At the cutoff of 0.5 g/t Au, the current resource estimate produced 1,986,094 tonnes, at an average grade of 0.4 g/t Au with a total ounces of 25,541 Au which has seen an improvement over the previous estimate which reported a total tonnes of 1,320,750, with an average grade of 0.2 g/t Au and a total ounce of 8,493 respectively, at the same cutoff grade.

At the cutoff of 1 g/t Au, the current resource estimate produced total tonnes of 6,119,688, at an average grade of 0.76 g/t Au with a total associated ounces of 149,530 Au which has been an upgrade of the previous respective estimate which reported a total tonnes of 5,339,500, with an average grade of 0.65g/t Au and a total ounce of 111,583, at the same cutoff grade.

At the cutoff of 5 g/t Au, the current resource estimate realized total tonnes of 6,700,156, at an average grade of 1.44 g/t Au with a total associated ounces of 310,194 Au which has been an upgrade of the previous respective estimate which reported a total tonnes of 6,052,000, with an average grade of 1.02 g/t Au and a total ounce of 198,465, at the same cutoff grade.

Using the current resource estimate based on the 25 m by 25 m grid, at the cutoff of 10 g/t Au, 4,375 tonnes of material emanated from the model, at an average grade of 6.07 g/t Au with a total associated ounces of 854Au which has been an improvement of the previous respective estimate which reported a total tonnes of 3,012, with an average grade of 4.23 g/t Au and a total ounce of 410, at the same cutoff grade.

On the whole, the current drilling at the specified grid as stated above shows a tremendous improvement of the resource estimate after the earlier drilling has been closed in to the current grid. This confirmed the N-S extensions of the deposit and the inherent continuity that has been generated using the current drill spacing. A total of 14,810,313 tonnes of oxide material has been modeled using a cut off of 0.3 g/t Au, at an average grade of 1.02 g/t Au producing a total of 486,119 Au ounces; which is an improvement of the previous estimate done of the 50 m x 50 m grid which produced 12,715,263 tonnes at an average grade of 0.78 g/t Au yielding 318, 951 Au ounces. The previous resource has been increased by at least 52% after closing in the grid to the current 25 m x 25 m grid.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

From this study, the following conclusions and recommendations can be made;

Modern geostatistical tools, which provide quantitative methods of describing risk, allow informed decisions to be made based on quality geological data, spatial continuity and probability.

From the models made, it has been found out that the previous Mantriam model based on the 50 m X 50 m grid was not adequately executed. The study of this resource was an infill resource, and hence was meant to add up grade significantly. The 25 m x 25 m infill grid has significantly increased the resource base of the Mantriam deposit adding precision and much spatial continuity to the deposit.

Using ordinary kriging methodology, a total of 486,119 ounces of gold emanating from about 15 million tonnes of oxide material of average grade 1.02 g/t Au are realised from this model. This is an indication that the potential of the Mantriam Central deposit exist in reality to the north and south parts of the concession. The lateral potential of the Central deposit is open along strike in both N-S directions. It is evident in the drilling that certain deeply drilled holes intercepted ores beyond 100 meters. This has paved way to investigate the in depth potential of the deposit.

Ore estimation using ordinary Kriging method was used to define the mineral resources of the deposit due to the nature and the amount of data that were available for estimation in the project area. Comparison between the kriged estimate and the composite grade show less than 1% variation between them. This means an effective model has been produced.

5.2 Recommendations

Based on the findings, it is being recommended that:

- The southern part of the modelled ground which was not covered with drilling data should be covered with 25 m x 25 m drilling programme to help establish further the continuity of the resource.
- Systematic deep holes be drilled over the property to ascertain the continuity or otherwise of the resource model.

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Important websites

www. http://www.goldfields.co.za/ops_int_tarkwa.php

www.gemcomsoftware.com

<http://www.isaaks.com>

www.jorc.org

APPENDIX 1

ABBREVIATIONS

3D	three dimensional model
AGA	AngloGold Ashanti
AGC	Ashanti Goldfields Company Limited
Au	Gold
BM	Block Model
CIL	Carbon in Leach gold processing and recovery technology
COG	Cutoff Grade
EDA	Exploratory Data Analysis for Target Generation
EOH	End of Hole
g/t	Grammes per tonne
GAG	Ghanaian Australian Goldfields
GDM	Gradual Deformation Method of Geostatistical estimation
GFGL	Gold Fields Ghana Limited
GPS	Global Positioning System

Grade	Quantity of metal per unit weight of host rock
IAAM	Iduapriem AngloGold Ashanti Mine
IDW	Inverse Distance Weighting
IFC	International Financial Corporation
JORC	Australian code for reporting Mineral Resources and Reserves.
OK	Ordinary Kriging
PVC	Polyvinyl Chloride
RC	Reverse Circulation drilling. A drilling method using a tricone bit, during which Rock cuttings are pushed to the surface through an outer tube, by liquid and/or air pressure moving through an inner tube
TGL	Teberebie Gold Fields Limited
SAMREC	South African code for reporting Mineral Resources and Reserves.
UTM	Universal Transverse Mercator projection – grid co-ordinate system

APPENDIX 2

Table of Collar and Assay Data on Teberebie Mine

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A01	TEBA	31.2	10810.02	6718.57	143.84	DD	LINEAR
TARKWA	A09	TEBA	37.8	10905.22	6753.21	96.97	DD	LINEAR
TARKWA	A10	TEBA	34.35	10897.05	6861.42	89.42	DD	LINEAR
TARKWA	A11	TEBA	29.4	10868.68	6956.93	89.16	DD	LINEAR
TARKWA	A12	TEBA	14.9	10812.82	7048.47	90.48	DD	LINEAR
TARKWA	A13	TEBA	31.5	10717.67	6788.48	158.4	DD	LINEAR
TARKWA	A17	TEBA	18.3	10807.65	6825.11	126.62	DD	LINEAR
TARKWA	A18	TEBA	25	10770.45	6923.25	115.86	DD	LINEAR
TARKWA	A19	TEBA	11	10736.63	6994.83	98.14	DD	LINEAR
TARKWA	A28	TEBA	73.9	11029.7	6810.59	61.27	DD	LINEAR
TARKWA	A29	TEBA	172.3	11183.02	6878.91	68.95	DD	LINEAR
TARKWA	A30	TEBA	122.8	11065.18	6935.36	67.51	DD	LINEAR
TARKWA	A31	TEBA	362	11564.49	7042.53	69.35	DD	LINEAR
TARKWA	A44	TEBA	41.6	10934.15	6991.2	59.51	DD	LINEAR
TARKWA	A45	TEBA	48.9	10971.02	6900.8	60.09	DD	LINEAR
TARKWA	A56	TEBA	21	10741.43	6658.47	174.11	DD	LINEAR
TARKWA	A65	TEBA	151.7	11039.68	7033.77	74.73	DD	LINEAR
TARKWA	A66	TEBA	93	10945.4	7099.99	69.2	DD	LINEAR
TARKWA	A67	TEBA	153.85	11028.59	7137.46	71.05	DD	LINEAR
TARKWA	A68	TEBA	228.2	11201.28	7188.18	54.57	DD	LINEAR
TARKWA	A69	TEBA	304.75	11347.53	7281.17	57.69	DD	LINEAR
TARKWA	A84	TEBA	205.61	11062.54	7158.82	67.31	DD	LINEAR
TARKWA	A85	TEBA	179.2	11180.73	6867.11	70.01	DD	LINEAR
TARKWA	A86	TEBA	210	11204.22	6988.06	61.44	DD	LINEAR
TARKWA	A87	TEBA	192	11163.47	7102.96	57.18	DD	LINEAR
TARKWA	A88	TEBA	182.5	11126.2	7169.34	59.53	DD	LINEAR
TARKWA	A89	TEBA	268.35	11316.3	7226.54	53.4	DD	LINEAR
TARKWA	A90	TEBA	277.15	11337.64	7153.7	62.06	DD	LINEAR
TARKWA	A91	TEBA	269.2	11354.73	7058.33	62.06	DD	LINEAR
TARKWA	A92	TEBA	258.5	11359.91	6914.51	62.24	DD	LINEAR
TARKWA	A97	TEBA	31.65	10948.78	6868.32	68.42	DD	LINEAR
TARKWA	A98	TEBA	45.1	10930.53	6781.18	83.5	DD	LINEAR
TARKWA	A99	TEBA	35.1	10979.55	6799.46	60.74	DD	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	BF	DD	36.88	10748.77	10744.53	100.99	OLD	LINEAR
TARKWA	BG	DD	38.28	10785.84	10691.08	112.7	OLD	LINEAR
TARKWA	D01	TEBA	387	11900.86	7180.01	106.73	DD	LINEAR
TARKWA	DEP10	RC	84	10945	8400.01	59.28	TEB	linear
TARKWA	DEP12	RC	88	10939.99	8599.99	60.01	TEB	linear
TARKWA	DEP14	RC	83	10935	8800.01	53.81	TEB	linear
TARKWA	DEP16	RC	75	10895	8999.99	48.05	TEB	linear
TARKWA	DEP18	RC	80	10889.99	9200.01	47.84	TEB	linear
TARKWA	DEP2	RC	79	11030	7599.99	43.92	TEB	linear
TARKWA	DEP5	RC	78	10970	7900.02	47.68	TEB	linear
TARKWA	DEP6	RC	74	10950	8000.02	47.83	TEB	linear
TARKWA	DEP8	RC	79	10945	8200	59.09	TEB	linear
TARKWA	GDB1	DD	28.03	10599.89	9799.64	91.16	GDB	LINEAR
TARKWA	GDB10	DD	98.27	10795.59	9804.95	79.7	GDB	LINEAR
TARKWA	GDB27	DD	65	10799.93	8799.91	80.45	GDB	LINEAR
TARKWA	GDB28	DD	48.5	10804.6	8399.24	77.55	GDB	LINEAR
TARKWA	GDB29	METDD	117	10950	8850	77.21	GDB	LINEAR
TARKWA	GDB30	METDD	84	10945.99	7849.99	64.93	GDB	LINEAR
TARKWA	GDB31	METDD	144	10949.99	9450.01	86.23	GDB	LINEAR
TARKWA	GDB32	DD	21.5	10804.49	10000.33	99.26	GDM	LINEAR
TARKWA	GDB33	DD	63	10599.99	9625.04	77.7	GDB	LINEAR
TARKWA	GDB34	DD	60	10537.48	9500	90.49	GDB	LINEAR
TARKWA	GDB35	DD	182	11018	9299	75	GDB	LINEAR
TARKWA	GDB36	DD	158	11002	9397	91	GDB	LINEAR
TARKWA	GDB37	DD	216	11179	9801	99.49	GDB	LINEAR
TARKWA	GDB39	DD	167	11084	8962	68	GDB	LINEAR
TARKWA	GDB4	DD	20	10598.56	9598.63	77.81	TEB	LINEAR
TARKWA	GDB40	DD	176	11103	8809	72	GDB	LINEAR
TARKWA	GDB41	DD	194	11192	8633	66	GDB	LINEAR
TARKWA	GDB42	DD	181	11143	8429	65	GDB	LINEAR
TARKWA	GDB43	DD	176	11141	8209	63	GDB	LINEAR
TARKWA	GDB44	DD	179	11199	8005	61	GDB	LINEAR
TARKWA	GDB45	DD	182	11148	7784	65	GDB	LINEAR
TARKWA	GDB46	DD	179	11067.6	9498.63	91.94	GDB	LINEAR
TARKWA	GDB47	DD	161	11003.18	9598.31	93.42	GDB	LINEAR
TARKWA	GDB48	DD	144.5	10900.17	9599.93	89.92	GDB	LINEAR
TARKWA	GDB49	DD	152	10913.39	9697.22	90.1	GDB	LINEAR
TARKWA	GDB50	DD	176	11010.01	9798.87	86.13	GDB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	GDB51	DD	158	11004.81	9933.71	75.21	GDB	LINEAR
TARKWA	GDB52	DD	179	11092.89	9198.75	74.73	GDB	LINEAR
TARKWA	GDB53	DD	180	10912.22	9699.64	89.9	GDB	LINEAR
TARKWA	GDB54	DD	173	11175.05	7599.99	63.63	GDB	LINEAR
TARKWA	GDB55	DD	158	11174.97	7699.86	60.81	GDB	LINEAR
TARKWA	GDB56	DD	170	11180.74	7898.8	62.16	GDB	LINEAR
TARKWA	GDB57	DD	174	11184.62	8098.69	62.42	GDB	LINEAR
TARKWA	GDB58	DD	176	11182.64	8298.72	62.83	GDB	LINEAR
TARKWA	GDB59	DD	215	11384.79	7598.66	62.18	GDB	LINEAR
TARKWA	GDB60	DD	206	11339.31	7798.58	60.61	GDB	LINEAR
TARKWA	GDB61	DD	83	10724.69	9649.84	84.32	GDB	LINEAR
TARKWA	GDB62	DD	92	10724.69	9649.84	84.32	GDB	LINEAR
TARKWA	GDB63	DD	128	10925.14	9950.15	74.08	GDB	LINEAR
TARKWA	GDB64	DD	113	10875.3	9900.16	76.14	GDB	LINEAR
TARKWA	GDB65	DD	113	10875.3	9900.16	76.14	GDB	LINEAR
TARKWA	GDB66	DD	98	10824.76	9849.96	76.19	GDB	LINEAR
TARKWA	GDB67	DD	119	10774.88	9750.26	79.3	GDB	LINEAR
TARKWA	GDB68	DD	119	10848.99	9705.22	75.6	GDB	LINEAR
TARKWA	GDB69	DD	104	10795.54	9701.28	77.83	GDB	LINEAR
TARKWA	GDB70	DD	125	10800.86	9800.4	78.35	GDB	LINEAR
TARKWA	GDB8	DD	75.5	10800.38	9199.71	77.99	TEB	LINEAR
TARKWA	GDB9	DD	99.5	10799.83	9600.09	87.58	TEB	LINEAR
TARKWA	GDM1	DD	78	10797.72	10189.15	107.4	GDM	LINEAR
TARKWA	GDM10	DD	94.5	11021	10576.69	94.8	GDM	LINEAR
TARKWA	GDM11	DD	120	10971.12	10200.41	80.9	GDM	LINEAR
TARKWA	GDM12	DD	114	10991.48	10781.09	93.18	GDM	LINEAR
TARKWA	GDM13	DD	112	11003.12	10403.49	93.59	GDM	LINEAR
TARKWA	GDM14	DD	46	10799.96	10100.45	102.4	GDM	LINEAR
TARKWA	GDM15	DD	104	10900.78	10097.93	81.03	GDM	LINEAR
TARKWA	GDM16	DD	38.5	10697.62	10098.85	115.83	GDM	LINEAR
TARKWA	GDM17	DD	27	10598.36	10100.01	131.86	GDM	LINEAR
TARKWA	GDM18	DD	49	10798.97	10288.55	110.51	GDM	LINEAR
TARKWA	GDM19	DD	23	10695.99	10599.87	122.44	GDM	LINEAR
TARKWA	GDM2	DD	31.5	10603.07	10201.14	121.53	GDM	LINEAR
TARKWA	GDM20	DD	64.5	10902.52	10699.44	104.1	GDM	LINEAR
TARKWA	GDM21	DD	42.5	10700	10800	99.88	GDM	LINEAR
TARKWA	GDM23	DD	207	11086.93	10073.73	81.35	GDM	LINEAR
TARKWA	GDM24	METDD	42.76	10849.99	10249.99	99.61	GDM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	GDM25	METDD	64	10949.99	10249.99	83.71	GDM	LINEAR
TARKWA	GDM26	DD	156	11133.29	10778.14	99.53	GDM	LINEAR
TARKWA	GDM27	DD	174	11105.45	10707.05	108.02	GDM	LINEAR
TARKWA	GDM28	DD	204	11150	10699	100	GDP	LINEAR
TARKWA	GDM29	DD	174	11140	10500	100	GDP	LINEAR
TARKWA	GDM30	DD	165	11102.66	10607.91	99.51	GDM	LINEAR
TARKWA	GDM31	DD	147	11102.65	10496.34	98.87	GDM	LINEAR
TARKWA	GDM32	DD	165	11112	10397.55	98.46	GDM	LINEAR
TARKWA	GDM33	DD	220	11145	10298.77	100.34	GDM	LINEAR
TARKWA	GDM34	DD	235	11102.65	10199.98	93	GDM	LINEAR
TARKWA	GDM35	DD	186	11010	10005.01	75.66	GDM	LINEAR
TARKWA	GDM4	DD	67.5	10799.28	10000.7	103.01	GDM	LINEAR
TARKWA	GDM5	DD	39	10601.98	10002.99	131.05	GDM	LINEAR
TARKWA	GDM6	DD	42	10804.11	10406.22	101.68	GDM	LINEAR
TARKWA	GDM7	DD	31.5	10601.78	10398.81	137.55	GDM	LINEAR
TARKWA	GDM8	DD	54	10801.21	10600.37	119.61	GDM	LINEAR
TARKWA	GDM9	DD	34.5	10811.25	10787.21	96.47	GDM	LINEAR
TARKWA	GDP261	DD	240	11200.79	10601.34	92.52	GDM	LINEAR
TARKWA	GDP262	DD	246	11199.65	10400.03	95.61	GDM	LINEAR
TARKWA	GDP263	DD	221	11200.77	10199.64	80.76	GDM	LINEAR
TARKWA	GRM10	RC	40	10700	10400	117.97	GRM	LINEAR
TARKWA	GRM11	RC	60	10800	10500	113.75	GRM	LINEAR
TARKWA	GRM12	RC	70	10900	10800	96.34	GRM	LINEAR
TARKWA	GRM13	RC	60	10800	10700	110.04	GRM	LINEAR
TARKWA	GRM14	RC	40	10700	10600	125.14	GRM	LINEAR
TARKWA	GRM15	RC	80	10800	10100	103.44	GRM	LINEAR
TARKWA	GRM16	RC	60	10700	10100	116.87	GRM	LINEAR
TARKWA	GRM17	RC	50	10700	10200	115.26	GRM	LINEAR
TARKWA	GRM18	RC	40	10599.96	10299.98	137.09	GRM	LINEAR
TARKWA	GRM19	RC	30	10500	10200	130.07	GRM	LINEAR
TARKWA	GRM2	RC	75	10890.9	10697.9	108.05	GRM	LINEAR
TARKWA	GRM20	RC	35	10600	10100	132.3	GRM	LINEAR
TARKWA	GRM21	RC	70	10800	10300	111.11	GRM	LINEAR
TARKWA	GRM22	RC	80	10900	10400	91.39	GRM	LINEAR
TARKWA	GRM23	RC	80	10900	10600	108.67	GRM	LINEAR
TARKWA	GRM3	RC	50	10697.33	10501.68	119.88	GRM	LINEAR
TARKWA	GRM4	RC	70	10855.07	10513.6	118.46	GRM	LINEAR
TARKWA	GRM6	RC	50	10690.75	10306.85	127.95	GRM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	GRM7	RC	75	10904.28	10264.08	92.9	GRM	LINEAR
TARKWA	GRM9	RC	49	10700	10800	99.88	GRM	LINEAR
TARKWA	JH8	DD	215.55	11180.03	10655.17	95.53	OLD	LINEAR
TARKWA	MPQ6	PQ	64.5	10950.03	10400.15	85.9	GDM	LINEAR
TARKWA	MT01	DD1	41.85	10793.35	8894.53	82.15	TEB	LINEAR
TARKWA	MT02	DD1	41.2	10800.68	8796.75	80.41	TEB	LINEAR
TARKWA	MT03	DD1	38.2	10804.34	8694.18	77.33	TEB	LINEAR
TARKWA	MT04	DD1	38.8	10818.68	8590.66	76.06	TEB	LINEAR
TARKWA	MT05	DD1	49.9	10846.89	8488.63	76.98	TEB	LINEAR
TARKWA	MT06	DD1	45.2	10856.19	8388.42	75.04	TEB	LINEAR
TARKWA	MT07	DD1	47.85	10876.03	8179.86	72.91	TEB	LINEAR
TARKWA	MT08	DD1	50.5	10893.39	7964.83	71.81	TEB	LINEAR
TARKWA	MT09	DD1	49.95	10939.37	7767.23	65.42	TEB	LINEAR
TARKWA	MT10	DD1	54.2	10983.28	7565.5	66.46	TEB	LINEAR
TARKWA	MT100	DD1	124.6	11035.54	8433.97	71.46	TEB	LINEAR
TARKWA	MT101	DD1	115.4	11016.85	8536.31	68.49	TEB	LINEAR
TARKWA	MT102	DD1	111.5	11005.52	8641.9	65.38	TEB	LINEAR
TARKWA	MT103	DD1	116.2	11005.22	8743.77	67.62	TEB	LINEAR
TARKWA	MT104	DD1	122	10994.71	8853.42	73.51	TEB	LINEAR
TARKWA	MT108	DD1	48	10506.99	9623.81	123.86	TEB	LINEAR
TARKWA	MT109	DD1	43.5	10549.04	9533.83	111.65	TEB	LINEAR
TARKWA	MT11	DD1	41.5	10843.47	7539.41	102.95	TEB	LINEAR
TARKWA	MT110	DD1	38.5	10582.16	9426.39	97.63	TEB	LINEAR
TARKWA	MT111	DD1	51	10612.37	9670.05	106.29	TEB	LINEAR
TARKWA	MT112	DD1	47.5	10569.64	9759.23	111.22	TEB	LINEAR
TARKWA	MT113	DD1	41.9	10645.15	9790.99	94.18	TEB	LINEAR
TARKWA	MT114	DD1	53.34	10712.15	9814.77	91.5	TEB	LINEAR
TARKWA	MT115	DD1	96	10744.99	9724.08	88.91	TEB	LINEAR
TARKWA	MT116	DD1	78.3	10781.1	9632.22	81.35	TEB	LINEAR
TARKWA	MT117	DD1	61.2	10707.71	9600.36	79.86	TEB	LINEAR
TARKWA	MT118	DD1	63.1	10727.59	9501.1	79.39	TEB	LINEAR
TARKWA	MT119	DD1	90.6	10819.68	9540.57	78.44	TEB	LINEAR
TARKWA	MT12	DD1	34	10772.28	7676.56	108.8	TEB	LINEAR
TARKWA	MT120	DD1	167.4	11116.95	7393.45	57.74	TEB	LINEAR
TARKWA	MT121	DD1	162	11018.55	7348.59	59.46	TEB	LINEAR
TARKWA	MT13	DD1	17.65	10743.2	7883.42	107.66	TEB	LINEAR
TARKWA	MT139	DD1	30	10750.48	7667.42	109.76	TEB	LINEAR
TARKWA	MT14	DD1	16.5	10718.89	8110.71	115.19	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	MT140	DD1	30	10725.61	7711.21	115.41	TEB	LINEAR
TARKWA	MT141	DD1	30	10701.66	7755.39	121.08	TEB	LINEAR
TARKWA	MT142	DD1	30	10679.95	7799.42	131.48	TEB	LINEAR
TARKWA	MT143	DD1	30	10660.07	7844.22	137.7	TEB	LINEAR
TARKWA	MT144	DD1	30	10637.97	7889.17	147.09	TEB	LINEAR
TARKWA	MT145	DD1	30	10621.79	7935.52	150.62	TEB	LINEAR
TARKWA	MT146	DD1	30	10605.22	7982.8	156.12	TEB	LINEAR
TARKWA	MT147	DD1	30	10594.78	8041.32	159.34	TEB	LINEAR
TARKWA	MT148	DD1	30	10586.36	8089.84	160.92	TEB	LINEAR
TARKWA	MT149	DD1	30	10573.48	8138.66	161.44	TEB	LINEAR
TARKWA	MT15	DD1	12.2	10693.15	8336.32	114.85	TEB	LINEAR
TARKWA	MT150	DD1	30	10563.75	8187.72	162	TEB	LINEAR
TARKWA	MT151	DD1	30	10554.02	8236.77	163.65	TEB	LINEAR
TARKWA	MT152	DD1	30	10544.3	8285.83	164.13	TEB	LINEAR
TARKWA	MT153	DD1	30	10540.88	8335.36	162.57	TEB	LINEAR
TARKWA	MT154	DD1	30	10532.99	8385.2	159.54	TEB	LINEAR
TARKWA	MT155	DD1	30	10515.5	8432.08	159.55	TEB	LINEAR
TARKWA	MT156	DD1	30	10504.14	8490.21	161.43	TEB	LINEAR
TARKWA	MT16	DD1	14.5	10666.93	8609.44	112.62	TEB	LINEAR
TARKWA	MT165	DD1	231	11422.44	7627.2	65.84	TEB	LINEAR
TARKWA	MT166	DD1	195	11363.24	7811.9	60.09	TEB	LINEAR
TARKWA	MT167	DD1	192	11356.52	8019.24	68.6	TEB	LINEAR
TARKWA	MT168	DD1	192	11318.77	8238.29	62.4	TEB	LINEAR
TARKWA	MT169	DD1	192	11358.84	8452.32	63.58	TEB	LINEAR
TARKWA	MT17	DD1	16	10639.12	8762.62	123.3	TEB	LINEAR
TARKWA	MT170	DD1	183	11324.25	8659.34	63.74	TEB	LINEAR
TARKWA	MT171	DD1	180	11303.34	8867.78	64.35	TEB	LINEAR
TARKWA	MT172	DD1	183	11319.33	9016.57	66.15	TEB	LINEAR
TARKWA	MT173	DD1	172	11256.9	9208.31	66.17	TEB	LINEAR
TARKWA	MT174	DD1	171	11204.09	9404.8	69.25	TEB	LINEAR
TARKWA	MT175	DD1	162	11022.59	9758.38	76.12	TEB	LINEAR
TARKWA	MT176	DD1	159	11093.32	9596.25	69.73	TEB	LINEAR
TARKWA	MT18	DD1	54.1	11006.36	7458.06	64.39	TEB	LINEAR
TARKWA	MT182	DD1	15	10616.14	8802.5	130.15	TEB	LINEAR
TARKWA	MT183	DD1	174	11104.39	7549.12	68.14	TEB	LINEAR
TARKWA	MT184	DD1	177	11050.66	7797.21	70.01	TEB	LINEAR
TARKWA	MT185	DD1	135	11133.68	7809.53	66.75	TEB	LINEAR
TARKWA	MT186	DD1	108	10977.07	8609.84	69.62	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	MT187	DD1	150	10997.22	8614.48	67.9	TEB	LINEAR
TARKWA	MT188	DD1	111	10838.32	8570.74	72.7	TEB	LINEAR
TARKWA	MT189	DD1	123	10783.33	9202.67	78.74	TEB	LINEAR
TARKWA	MT19	DD1	62.2	10979.47	7679.94	63.71	TEB	LINEAR
TARKWA	MT190	DD1	150	10933.12	9253.54	69.89	TEB	LINEAR
TARKWA	MT20	DD1	51.85	10925.89	7864.59	66.02	TEB	LINEAR
TARKWA	MT21	DD1	47.2	10889.57	8072.76	68.52	TEB	LINEAR
TARKWA	MT22	DD1	47.7	10868.45	8293.8	70.98	TEB	LINEAR
TARKWA	MT23	DD1	20.62	10632.07	8829.06	124.37	TEB	LINEAR
TARKWA	MT24	DD1	18.6	10654.23	8522.79	118.6	TEB	LINEAR
TARKWA	MT25	DD1	20.23	10694.45	8426.87	113.32	TEB	LINEAR
TARKWA	MT26	DD1	17.7	10711.22	8221.36	113.33	TEB	LINEAR
TARKWA	MT27	DD1	20.6	10735.55	8008.17	111.44	TEB	LINEAR
TARKWA	MT28	DD1	15.15	10753.7	7776.12	109.79	TEB	LINEAR
TARKWA	MT29	DD1	26.3	10911.36	7418.23	85.84	TEB	LINEAR
TARKWA	MT30	DD1	36.15	10908.48	7502.69	88.59	TEB	LINEAR
TARKWA	MT31	DD1	37.31	10890.78	7573.34	86.95	TEB	LINEAR
TARKWA	MT32	DD1	41	10879.86	7638.17	81.44	TEB	LINEAR
TARKWA	MT33	DD1	41	10868.38	7714.69	83.23	TEB	LINEAR
TARKWA	MT34	DD1	30.95	10848.54	7813.72	80.39	TEB	LINEAR
TARKWA	MT35	DD1	29.35	10829.68	7920.76	82.88	TEB	LINEAR
TARKWA	MT36	DD1	31.99	10818.94	8042.05	84.9	TEB	LINEAR
TARKWA	MT37	DD1	36.27	10804.01	8147.49	90.33	TEB	LINEAR
TARKWA	MT38	DD1	29.87	10782	8254.29	92.05	TEB	LINEAR
TARKWA	MT39	DD1	33.67	10781.61	8356.07	92.91	TEB	LINEAR
TARKWA	MT40	DD1	34.24	10772.01	8453.97	93.36	TEB	LINEAR
TARKWA	MT41	DD1	29.55	10756.6	8565.71	92.38	TEB	LINEAR
TARKWA	MT42	DD1	30.29	10734.38	8662.67	99.76	TEB	LINEAR
TARKWA	MT43	DD1	17	10730.99	8766.44	99.85	TEB	LINEAR
TARKWA	MT44	DD1	27.17	10716.86	8857.03	101.99	TEB	LINEAR
TARKWA	MT45	DD1	49.54	10771.01	9030.47	80.87	TEB	LINEAR
TARKWA	MT46	DD1	37.82	10760.36	9079.14	80.81	TEB	LINEAR
TARKWA	MT47	DD1	24	10738.05	9181.48	83.3	TEB	LINEAR
TARKWA	MT48	DD1	37.31	10707.52	9274.95	84.77	TEB	LINEAR
TARKWA	MT49	DD1	29.15	10655.85	9367.15	85.6	TEB	LINEAR
TARKWA	MT50	DD1	30.53	10684.28	8939.88	108.32	TEB	LINEAR
TARKWA	MT51	DD1	30.79	10664.98	9040.23	107.61	TEB	LINEAR
TARKWA	MT52	DD1	40.9	10640.82	9141.79	103.55	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	MT53	DD1	29.63	10621.37	9239.91	102.56	TEB	LINEAR
TARKWA	MT54	DD1	36.02	10594.68	9337.16	97.89	TEB	LINEAR
TARKWA	MT55	DD1	24.3	10522.96	9283.23	113.54	TEB	LINEAR
TARKWA	MT56	DD1	33.3	10538.6	9201.95	121.82	TEB	LINEAR
TARKWA	MT57	DD1	34.75	10558.06	9103.84	124.2	TEB	LINEAR
TARKWA	MT58	DD1	34.91	10581.47	8991.11	127.46	TEB	LINEAR
TARKWA	MT59	DD1	32.29	10594.82	8902.37	127.16	TEB	LINEAR
TARKWA	MT61	DD1	58.85	10789.27	8981.74	80.42	TEB	LINEAR
TARKWA	MT62	DD1	45.25	10637.79	9459.35	87.41	TEB	LINEAR
TARKWA	MT63	DD1	54.3	10641.78	9566.21	88.96	TEB	LINEAR
TARKWA	MT64	DD1	78.1	10728.77	9674.26	90.11	TEB	LINEAR
TARKWA	MT65	DD1	116.9	11075.91	7477.93	62.38	TEB	LINEAR
TARKWA	MT66	DD1	95.6	11060.68	7581.16	70.08	TEB	LINEAR
TARKWA	MT67	DD1	107.7	11052.7	7684.65	60.09	TEB	LINEAR
TARKWA	MT68	DD1	88.5	11021.15	7787.42	63.96	TEB	LINEAR
TARKWA	MT69	DD1	105	11008.06	7896.05	67.25	TEB	LINEAR
TARKWA	MT70	DD1	79	10982.89	7983.96	65.08	TEB	LINEAR
TARKWA	MT71	DD1	117.1	11056.89	8010.67	74.97	TEB	LINEAR
TARKWA	MT72	DD1	137.3	11062.52	7903.09	76.12	TEB	LINEAR
TARKWA	MT73	DD1	117.3	11084.79	7805.09	70.89	TEB	LINEAR
TARKWA	MT74	DD1	133.2	11118.83	7705.81	60.09	TEB	LINEAR
TARKWA	MT75	DD1	117.8	11124.26	7606.18	64.81	TEB	LINEAR
TARKWA	MT76	DD1	140	11143	7506.13	63.51	TEB	LINEAR
TARKWA	MT77	DD1	89.2	10892.25	8921.32	69.76	TEB	LINEAR
TARKWA	MT78	DD1	75.7	10877.69	9023.52	77.3	TEB	LINEAR
TARKWA	MT79	DD1	90	10850.03	9119.18	79.01	TEB	LINEAR
TARKWA	MT80	DD1	84.1	10827.99	9217.26	78.15	TEB	LINEAR
TARKWA	MT81	DD1	74	10800.19	9312	70.86	TEB	LINEAR
TARKWA	MT82	DD1	44.6	10750	9399.72	73.23	TEB	LINEAR
TARKWA	MT83	DD1	81	10843.97	9441.08	76.13	TEB	LINEAR
TARKWA	MT84	DD1	102.7	10893.28	9351.76	71.27	TEB	LINEAR
TARKWA	MT85	DD1	111	10920.93	9255.74	70.64	TEB	LINEAR
TARKWA	MT86	DD1	124.7	10946.8	9151.42	82.74	TEB	LINEAR
TARKWA	MT87	DD1	130.2	10966.69	9060.67	83.02	TEB	LINEAR
TARKWA	MT88	DD1	127.8	10984.28	8956.97	79.87	TEB	LINEAR
TARKWA	MT89	DD1	71.8	10902.77	8812.4	68.48	TEB	LINEAR
TARKWA	MT90	DD1	82.3	10905.2	8710.43	66.15	TEB	LINEAR
TARKWA	MT91	DD1	69.1	10917.09	8603.56	68.1	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	MT92	DD1	94	10934.35	8498.62	72.24	TEB	LINEAR
TARKWA	MT93	DD1	81.4	10936.7	8395.54	79.88	TEB	LINEAR
TARKWA	MT94	DD1	109	10956.62	8295.57	84.09	TEB	LINEAR
TARKWA	MT95	DD1	97	10968.23	8190.84	68.1	TEB	LINEAR
TARKWA	MT96	DD1	97.3	10976.02	8085.81	67.87	TEB	LINEAR
TARKWA	MT97	DD1	128.3	11044.83	8114.15	73.12	TEB	LINEAR
TARKWA	MT98	DD1	123.9	11039.57	8223.51	73.54	TEB	LINEAR
TARKWA	MT99	DD1	132	11027.83	8327.63	82.69	TEB	LINEAR
TARKWA	ON0649	RC	113	11125.124	8399.956	29.8	TEB	linear
TARKWA	ON0651	RC	120	11125.02	8424.969	29.867	TEB_CUT	linear
TARKWA	ON0749	RC	113	11125.023	8299.98	29.815	TEB_CUT	linear
TARKWA	ON0751	RC	114	11124.986	8325.018	29.645	TEB_CUT	linear
TARKWA	ON0753	RC	114	11125.122	8350.01	29.823	TEB_CUT	linear
TARKWA	ON0755	RC	105	11125.005	8374.92	29.823	TEB_CUT	linear
TARKWA	ON0849	RC	113	11124.625	8200.041	29.8	TEB	linear
TARKWA	ON0851	RC	114	11125.026	8225.009	30.066	TEB	linear
TARKWA	ON0853	RC	113	11125.121	8249.997	30.123	TEB	linear
TARKWA	ON0855	RC	113	11125.03	8274.996	30.111	TEB_CUT	linear
TARKWA	ON0949	RC	110	11124.948	8099.975	29.645	TEB	linear
TARKWA	ON0951	RC	114	11124.922	8124.924	29.709	TEB	linear
TARKWA	ON0953	RC	113	11124.981	8150.034	29.604	TEB	linear
TARKWA	ON0955	RC	112	11125.004	8174.939	29.737	TEB	linear
TARKWA	ON1049	RC	111	11125.129	8000.015	29.758	TEB	linear
TARKWA	ON1051	RC	111	11125.109	8025.056	29.976	TEB	linear
TARKWA	ON1053	RC	111	11125.111	8049.941	29.584	TEB	linear
TARKWA	ON1055	RC	112	11124.986	8074.967	29.872	TEB	linear
TARKWA	ON1133	RC	117	11150.103	7899.973	29.94	TEB	linear
TARKWA	ON1135	RC	117	11149.827	7925.042	29.947	TEB	linear
TARKWA	ON1137	RC	119	11150.134	7949.906	29.639	TEB	linear
TARKWA	ON1139	RC	118	11150.138	7974.914	29.561	TEB	linear
TARKWA	ON1149	RC	110	11125.043	7900.037	30.433	TEB_CUT	linear
TARKWA	ON1151	RC	110	11125.015	7925.1	30.06	TEB	linear
TARKWA	ON1153	RC	110	11125.01	7949.884	30.158	TEB	linear
TARKWA	ON1155	RC	111	11125.074	7975.094	29.867	TEB	linear
TARKWA	ON1233	RC	113	11149.921	7799.979	30.047	TEB	linear
TARKWA	ON1235	RC	118	11149.988	7825.129	30.592	TEB	linear
TARKWA	ON1237	RC	118	11150.093	7849.984	30.308	TEB	linear
TARKWA	ON1239	RC	117	11150.053	7875.022	30.368	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	ON1249	RC	108	11125.057	7800.023	29.954	TEB	linear
TARKWA	ON1251	RC	109	11124.965	7824.971	30.398	TEB	linear
TARKWA	ON1253	RC	110	11125.18	7850.062	30.496	TEB	linear
TARKWA	ON1255	RC	111	11124.939	7874.929	30.515	TEB_CUT	linear
TARKWA	ON1333	RC	111	11149.99	7699.965	30.082	TEB	linear
TARKWA	ON1335	RC	113	11150.012	7724.99	29.926	TEB	linear
TARKWA	ON1337	RC	112	11150.004	7749.998	30.039	TEB	linear
TARKWA	ON1339	RC	114	11149.998	7774.999	30.025	TEB	linear
TARKWA	ON1349	RC	102	11125.02	7699.999	29.46	TEB	linear
TARKWA	ON1351	RC	104	11125.065	7724.933	29.802	TEB	linear
TARKWA	ON1353	RC	107	11125.096	7749.947	29.555	TEB	linear
TARKWA	ON1355	RC	107	11125	7775	29.673	TEB	linear
TARKWA	ON1435	RC	108	11150.02	7624.985	29.96	TEB	linear
TARKWA	ON1437	RC	108	11149.989	7649.991	29.802	TEB	linear
TARKWA	ON1439	RC	110	11150.024	7674.994	30.068	TEB	linear
TARKWA	ON1449	RC	99	11125.03	7599.98	30.576	TEB	linear
TARKWA	ON1451	RC	101	11125.061	7624.98	30.194	TEB	linear
TARKWA	ON1453	RC	101	11124.995	7649.989	29.693	TEB	linear
TARKWA	ON1455	RC	102	11125.04	7674.997	29.69	TEB	linear
TARKWA	ON1549	RC	110	11125.05	7500	62.2	Teb_Cut	linear
TARKWA	ON1551	RC	138	11125.14	7525.11	64.53	Teb_Cut	linear
TARKWA	ON1553	RC	125	11125.14	7550.13	66.83	Teb_Cut	linear
TARKWA	ON1555	RC	96	11124.995	7575.03	30.46	TEB	linear
TARKWA	ON1653	RC	133	11125.14	7450.1	61.44	Teb_Cut	linear
TARKWA	ON1655	RC	135	11125.14	7475.01	63.47	Teb_Cut	linear
TARKWA	ON1755	RC	134	11124.98	7375	61.02	Teb_Cut	linear
TARKWA	P0017	RC	99	11074.935	9000.047	30.349	TEB	linear
TARKWA	P0019	RC	4	11074.999	9025.004	31.075	TEB	linear
TARKWA	P0033	RC	95	11049.851	9000.101	30.015	TEB	linear
TARKWA	P0035	RC	95	11049.982	9025.056	30.094	TEB	linear
TARKWA	P0037	RC	93	11050.221	9049.796	30.078	TEB	linear
TARKWA	P0039	RC	95	11050.034	9074.949	30.332	TEB	linear
TARKWA	P0049	RC	87	11025.388	9000.046	29.519	TEB	linear
TARKWA	P0051	RC	88	11025.011	9024.969	29.764	TEB	linear
TARKWA	P0053	RC	89	11025.501	9049.91	29.558	TEB	linear
TARKWA	P0055	RC	91	11025.009	9074.983	29.638	TEB	linear
TARKWA	P0133	RC	96	11050.125	9100.044	30.075	TEB	linear
TARKWA	P0149	RC	89	11025.465	9099.964	29.695	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	P0151	RC	91	11024.929	9125.098	29.857	TEB	linear
TARKWA	P1349	RC	127	11024.99	10299.99	89.96	RCM	LINEAR
TARKWA	P1353	RC	94	11026.99	10349.69	89.96	RCM	LINEAR
TARKWA	PN0101	RC	109	11101.569	8896.266	30.079	TEB	linear
TARKWA	PN0103	RC	108	11100.342	8928.447	30.163	TEB	linear
TARKWA	PN0117	RC	103	11074.947	8900.056	29.979	TEB	linear
TARKWA	PN0119	RC	100	11075.046	8924.902	30.01	TEB	linear
TARKWA	PN0121	RC	100	11074.957	8950.007	30.322	TEB	linear
TARKWA	PN0123	RC	100	11075.074	8974.845	30.331	TEB	linear
TARKWA	PN0133	RC	97	11049.892	8899.979	29.72	TEB	linear
TARKWA	PN0135	RC	97	11049.976	8925.101	29.913	TEB	linear
TARKWA	PN0137	RC	96	11049.963	8950.122	30.1	TEB	linear
TARKWA	PN0139	RC	98	11049.995	8975.018	30.418	TEB	linear
TARKWA	PN0149	RC	91	11025.418	8899.956	29.977	TEB	linear
TARKWA	PN0151	RC	91	11025.015	8924.935	29.805	TEB	linear
TARKWA	PN0153	RC	91	11025.015	8950.012	29.909	TEB	linear
TARKWA	PN0155	RC	90	11025.029	8974.905	29.85	TEB	linear
TARKWA	PN0201	RC	108	11100.005	8799.98	30.915	TEB	linear
TARKWA	PN0203	RC	109	11100.016	8824.973	30.545	TEB	linear
TARKWA	PN0205	RC	107	11100.307	8849.956	30.267	TEB	linear
TARKWA	PN0207	RC	108	11100.009	8874.992	29.91	TEB	linear
TARKWA	PN0217	RC	104	11074.933	8800.099	30.104	TEB	linear
TARKWA	PN0219	RC	101	11075.004	8824.969	29.766	TEB	linear
TARKWA	PN0221	RC	101	11074.562	8850.092	29.99	TEB	linear
TARKWA	PN0223	RC	103	11074.993	8875.03	30.447	TEB	linear
TARKWA	PN0233	RC	96	11049.883	8800.011	30.451	TEB	linear
TARKWA	PN0235	RC	95	11050.007	8824.95	30.489	TEB	linear
TARKWA	PN0237	RC	96	11049.998	8850.028	30.345	TEB	linear
TARKWA	PN0239	RC	97	11050.009	8874.956	30.236	TEB	linear
TARKWA	PN0249	RC	91	11025.319	8800.07	30.255	TEB	linear
TARKWA	PN0251	RC	89	11024.998	8825.08	29.615	TEB	linear
TARKWA	PN0253	RC	89	11024.995	8850.06	29.922	TEB	linear
TARKWA	PN0255	RC	89	11024.999	8874.962	29.586	TEB	linear
TARKWA	PN0301	RC	108	11100.304	8699.954	30.712	TEB_CUT	linear
TARKWA	PN0303	RC	107	11099.974	8725.079	30.437	TEB_CUT	linear
TARKWA	PN0305	RC	108	11100.278	8750.019	30.742	TEB_CUT	linear
TARKWA	PN0307	RC	108	11100.009	8774.986	30.791	TEB	linear
TARKWA	PN0317	RC	102	11074.976	8700.049	30.485	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN0319	RC	101	11074.974	8724.945	30.309	TEB	linear
TARKWA	PN0321	RC	103	11074.932	8750.052	30.729	TEB	linear
TARKWA	PN0323	RC	103	11074.979	8775.083	30.466	TEB	linear
TARKWA	PN0333	RC	95	11050.03	8700.002	30.595	TEB	linear
TARKWA	PN0335	RC	95	11050.023	8725.035	30.932	TEB	linear
TARKWA	PN0337	RC	97	11050.041	8750.04	30.787	TEB	linear
TARKWA	PN0339	RC	94	11049.995	8774.991	31.006	TEB	linear
TARKWA	PN0349	RC	87	11024.195	8699.988	30.8	TEB	linear
TARKWA	PN0351	RC	89	11025	8725.041	30.833	TEB	linear
TARKWA	PN0353	RC	90	11024.451	8750.004	30.739	TEB	linear
TARKWA	PN0355	RC	89	11024.994	8775.097	30.28	TEB	linear
TARKWA	PN0401	RC	107	11100.243	8599.925	30.55	TEB_CUT	linear
TARKWA	PN0403	RC	108	11103.997	8625.008	30.595	TEB_CUT	linear
TARKWA	PN0405	RC	108	11100.287	8650.033	30.649	TEB_CUT	linear
TARKWA	PN0407	RC	108	11100.006	8674.99	30.645	TEB_CUT	linear
TARKWA	PN0417	RC	100	11074.975	8600.001	30.732	TEB	linear
TARKWA	PN0419	RC	102	11075.051	8624.99	30.799	TEB	linear
TARKWA	PN0421	RC	101	11075.042	8649.975	30.482	TEB	linear
TARKWA	PN0423	RC	101	11074.976	8675.02	30.317	TEB	linear
TARKWA	PN0433	RC	94	11049.314	8600.042	30.815	TEB	linear
TARKWA	PN0435	RC	94	11050.012	8625.02	30.619	TEB	linear
TARKWA	PN0437	RC	94	11050.05	8649.998	30.713	TEB	linear
TARKWA	PN0439	RC	94	11050.057	8674.992	30.463	TEB	linear
TARKWA	PN0449	RC	86	11025.218	8600.095	30.53	TEB	linear
TARKWA	PN0451	RC	82	11025.013	8624.979	30.453	TEB	linear
TARKWA	PN0453	RC	86	11025.299	8650.053	30.577	TEB	linear
TARKWA	PN0455	RC	89	11025.015	8674.945	30.747	TEB	linear
TARKWA	PN0501	RC	107	11100.254	8499.906	29.996	TEB_CUT	linear
TARKWA	PN0503	RC	107	11099.992	8525.025	29.857	TEB_CUT	linear
TARKWA	PN0505	RC	107	11100.249	8549.924	30.239	TEB_CUT	linear
TARKWA	PN0507	RC	108	11100.008	8575.015	30.564	TEB_CUT	linear
TARKWA	PN0517	RC	100	11074.99	8500.017	30.146	TEB_CUT	LINEAR
TARKWA	PN0519	RC	101	11075.032	8524.992	30.018	TEB_CUT	LINEAR
TARKWA	PN0521	RC	100	11075.006	8550.059	30.151	TEB_CUT	LINEAR
TARKWA	PN0523	RC	102	11075.008	8574.986	30.611	TEB	linear
TARKWA	PN0533	RC	93	11049.545	8499.982	30.782	TEB_CUT	LINEAR
TARKWA	PN0535	RC	93	11049.992	8525.02	30.852	TEB_CUT	LINEAR
TARKWA	PN0537	RC	93	11050.025	8550.008	30.649	TEB_CUT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN0539	RC	94	11050.064	8575.052	30.535	TEB	linear
TARKWA	PN0549	RC	121	11025	8500	66.63	Teb_Cut	linear
TARKWA	PN0551	RC	119	11024.99	8524.99	66.61	Teb_Cut	linear
TARKWA	PN0553	RC	85	11024.039	8550.094	30.858	TEB_CUT	LINEAR
TARKWA	PN0555	RC	85	11025.004	8574.982	30.634	TEB	linear
TARKWA	PN0601	RC	107	11100.237	8399.98	30.019	TEB_CUT	LINEAR
TARKWA	PN0603	RC	107	11100.006	8424.006	30.671	TEB_CUT	linear
TARKWA	PN0605	RC	106	11100.224	8450.066	29.902	TEB_CUT	linear
TARKWA	PN0607	RC	107	11099.992	8475.056	29.678	TEB_CUT	linear
TARKWA	PN0617	RC	98	11074.909	8399.911	30.434	TEB_CUT	LINEAR
TARKWA	PN0619	RC	100	11075.011	8424.985	30.318	TEB_CUT	LINEAR
TARKWA	PN0621	RC	100	11074.975	8450.023	30.222	TEB_CUT	LINEAR
TARKWA	PN0623	RC	99	11074.783	8474.876	30	TEB_CUT	LINEAR
TARKWA	PN0633	RC	91	11049.979	8400.091	30.219	TEB_CUT	LINEAR
TARKWA	PN0635	RC	92	11049.909	8424.911	30.4	TEB_CUT	LINEAR
TARKWA	PN0637	RC	92	11049.589	8449.982	30.775	TEB_CUT	LINEAR
TARKWA	PN0639	RC	92	11049.783	8474.876	30.708	TEB_CUT	LINEAR
TARKWA	PN0649	RC	125	11025.01	8400.02	72.67	Teb_Cut	linear
TARKWA	PN0651	RC	124	11025	8425.01	70.18	Teb_Cut	linear
TARKWA	PN0653	RC	122	11024.99	8450	68.5	Teb_Cut	linear
TARKWA	PN0655	RC	122	11025.01	8475	67.28	Teb_Cut	linear
TARKWA	PN0701	RC	106	11100.02	8300.02	29.776	TEB_CUT	linear
TARKWA	PN0703	RC	105	11100.015	8324.981	29.895	TEB_CUT	LINEAR
TARKWA	PN0705	RC	107	11100.238	8349.948	30.148	TEB_CUT	LINEAR
TARKWA	PN0707	RC	107	11100	8374.927	30.091	TEB_CUT	LINEAR
TARKWA	PN0717	RC	97	11074.998	8299.973	30.214	TEB_CUT	LINEAR
TARKWA	PN0719	RC	98	11075	8325.072	30.204	TEB_CUT	LINEAR
TARKWA	PN0721	RC	98	11074.906	8350.013	30.253	TEB_CUT	LINEAR
TARKWA	PN0723	RC	97	11075.009	8375.063	30.325	TEB_CUT	LINEAR
TARKWA	PN0733	RC	133	11050	8300	72.22	Teb_Cut	linear
TARKWA	PN0737	RC	90	11050.01	8349.995	30.253	TEB_CUT	LINEAR
TARKWA	PN0739	RC	91	11050.005	8375.036	30.313	TEB_CUT	LINEAR
TARKWA	PN0749	RC	125	11024.99	8300	72.27	Teb_Cut	linear
TARKWA	PN0751	RC	123	11024.99	8325	72.4	Teb_Cut	linear
TARKWA	PN0753	RC	126	11025.03	8350.01	72.98	Teb_Cut	linear
TARKWA	PN0755	RC	126	11025	8375	73.45	Teb_Cut	linear
TARKWA	PN0801	RC	106	11099.989	8200.011	30.131	TEB	linear
TARKWA	PN0803	RC	105	11100.02	8225.025	30.054	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN0805	RC	105	11099.949	8250.048	29.944	TEB	linear
TARKWA	PN0807	RC	105	11099.97	8275.04	29.84	TEB_CUT	linear
TARKWA	PN0817	RC	96	11074.959	8200.067	29.561	TEB	linear
TARKWA	PN0819	RC	97	11075.007	8225.042	29.582	TEB	linear
TARKWA	PN0821	RC	96	11074.956	8250.089	29.978	TEB	linear
TARKWA	PN0823	RC	97	11074.997	8275.034	30.014	TEB_CUT	linear
TARKWA	PN0833	RC	129	11049.99	8200.01	70.56	Teb_Cut	linear
TARKWA	PN0835	RC	129	11049.99	8225.01	71.68	Teb_Cut	linear
TARKWA	PN0837	RC	131	11050	8250	71.97	Teb_Cut	linear
TARKWA	PN0839	RC	132	11049.99	8275	72.29	Teb_Cut	linear
TARKWA	PN0849	RC	119	11025	8200	69.18	Teb_Cut	linear
TARKWA	PN0851	RC	121	11025	8225.01	71.5	Teb_Cut	linear
TARKWA	PN0853	RC	122	11025.01	8250	71.86	Teb_Cut	linear
TARKWA	PN0855	RC	124	11024.99	8275.01	72.54	Teb_Cut	linear
TARKWA	PN0901	RC	105	11100.022	8099.988	30.128	TEB	linear
TARKWA	PN0903	RC	105	11099.966	8125.053	29.863	TEB	linear
TARKWA	PN0905	RC	106	11099.976	8150.049	29.89	TEB	linear
TARKWA	PN0907	RC	104	11099.98	8175.054	29.983	TEB	linear
TARKWA	PN0917	RC	96	11074.908	8100.053	29.963	TEB	linear
TARKWA	PN0919	RC	97	11074.951	8125.013	29.856	TEB	linear
TARKWA	PN0921	RC	97	11074.964	8150.001	29.772	TEB	linear
TARKWA	PN0923	RC	97	11075.031	8175.067	29.757	TEB	linear
TARKWA	PN0933	RC	131	11050	8100	72.6	Teb_Cut	linear
TARKWA	PN0935	RC	130	11050	8125.01	71.89	Teb_Cut	linear
TARKWA	PN0937	RC	129	11050	8149.99	70.91	Teb_Cut	linear
TARKWA	PN0939	RC	130	11049.99	8175.01	70.48	Teb_Cut	linear
TARKWA	PN0949	RC	123	11025	8100	74.72	Teb_Cut	linear
TARKWA	PN0951	RC	122	11025	8126	71.78	Teb_Cut	linear
TARKWA	PN0953	RC	120	11025	8150	69.37	Teb_Cut	linear
TARKWA	PN0955	RC	119	11025	8175	68.91	Teb_Cut	linear
TARKWA	PN1001	RC	104	11099.96	8000.04	29.761	TEB_CUT	linear
TARKWA	PN1003	RC	104	11099.959	8024.996	29.692	TEB	linear
TARKWA	PN1005	RC	104	11099.875	8049.946	29.613	TEB	linear
TARKWA	PN1007	RC	103	11099.905	8075.011	29.883	TEB	linear
TARKWA	PN1017	RC	96	11075.236	7999.936	30.091	TEB	linear
TARKWA	PN1019	RC	97	11074.997	8025.045	29.794	TEB_CUT	linear
TARKWA	PN1021	RC	98	11074.918	8050.022	29.686	TEB_CUT	linear
TARKWA	PN1023	RC	96	11074.993	8075.032	30.031	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN1033	RC	135	11049.98	7999.99	76.82	Teb_Cut	linear
TARKWA	PN1035	RC	135	11050.03	8025.03	75.82	Teb_Cut	linear
TARKWA	PN1037	RC	133	11050.01	8050.01	74.53	Teb_Cut	linear
TARKWA	PN1039	RC	130	11050	8075	72.59	Teb_Cut	linear
TARKWA	PN1049	RC	132	11025	8000	81.9	Teb_Cut	linear
TARKWA	PN1051	RC	128	11025	8024.99	79.7	Teb_Cut	linear
TARKWA	PN1053	RC	128	11025	8049.98	77.25	Teb_Cut	linear
TARKWA	PN1055	RC	126	11025	8075.01	75.43	Teb_Cut	linear
TARKWA	PN1101	RC	103	11099.981	7899.958	30.615	TEB_CUT	linear
TARKWA	PN1103	RC	104	11100.157	7925.122	30.544	TEB	linear
TARKWA	PN1105	RC	104	11099.957	7950.078	30.401	TEB	linear
TARKWA	PN1107	RC	104	11100.017	7974.928	30.005	TEB_CUT	linear
TARKWA	PN1117	RC	95	11074.876	7900.049	30.727	TEB_CUT	linear
TARKWA	PN1119	RC	95	11075.033	7925.025	30.774	TEB	linear
TARKWA	PN1121	RC	95	11074.89	7950.063	30.499	TEB	linear
TARKWA	PN1123	RC	96	11074.827	7974.823	30.207	TEB	linear
TARKWA	PN1133	RC	133	11050	7900	77.12	Teb_Cut	linear
TARKWA	PN1135	RC	132	11050.01	7924.99	75.22	Teb_Cut	linear
TARKWA	PN1137	RC	131	11049.98	7949.99	74.28	Teb_Cut	linear
TARKWA	PN1139	RC	133	11049.51	7975.56	75.69	Teb_Cut	linear
TARKWA	PN1149	RC	116	11025	7899.99	69.3	Teb_Cut	linear
TARKWA	PN1151	RC	118	11025	7924.99	70.65	Teb_Cut	linear
TARKWA	PN1153	RC	122	11025	7950	73.96	Teb_Cut	linear
TARKWA	PN1155	RC	127	11025	7975	79.03	Teb_Cut	linear
TARKWA	PN1201	RC	101	11100.016	7800.012	29.933	TEB	linear
TARKWA	PN1203	RC	102	11099.995	7824.994	29.895	TEB	linear
TARKWA	PN1205	RC	101	11099.947	7849.981	30.262	TEB_CUT	linear
TARKWA	PN1207	RC	102	11100.012	7874.983	30.365	TEB_CUT	linear
TARKWA	PN1217	RC	130	11075	7800.01	68.69	Teb_Cut	linear
TARKWA	PN1219	RC	135	11075.01	7824.93	73.45	Teb_Cut	linear
TARKWA	PN1221	RC	93	11074.883	7849.99	30.254	TEB_CUT	linear
TARKWA	PN1223	RC	94	11074.974	7875.012	30.248	TEB_CUT	linear
TARKWA	PN1233	RC	123	11049.98	7800	68.77	Teb_Cut	linear
TARKWA	PN1235	RC	127	11049.96	7825	74.17	Teb_Cut	linear
TARKWA	PN1237	RC	131	11049.99	7850	77.21	Teb_Cut	linear
TARKWA	PN1239	RC	130	11050	7874.99	77.35	Teb_Cut	linear
TARKWA	PN1249	RC	109	11025	7799.99	65.47	Teb_Cut	linear
TARKWA	PN1251	RC	112	11025	7824.98	67.29	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN1253	RC	114	11025	7850.01	68.11	Teb_Cut	linear
TARKWA	PN1255	RC	116	11025	7875.01	68.74	Teb_Cut	linear
TARKWA	PN1301	RC	126	11100	7700.01	59.31	Teb_Cut	linear
TARKWA	PN1303	RC	127	11100.01	7724.98	60.03	Teb_Cut	linear
TARKWA	PN1305	RC	130	11100.05	7749.86	62.81	Teb_Cut	linear
TARKWA	PN1307	RC	99	11100.026	7774.996	29.663	TEB	linear
TARKWA	PN1317	RC	119	11075	7700	59.65	Teb_Cut	linear
TARKWA	PN1319	RC	119	11074.99	7724.98	60.67	Teb_Cut	linear
TARKWA	PN1321	RC	122	11075.01	7749.99	62.72	Teb_Cut	linear
TARKWA	PN1323	RC	127	11075.01	7774.95	65.56	Teb_Cut	linear
TARKWA	PN1333	RC	111	11050	7700.01	60.3	Teb_Cut	linear
TARKWA	PN1335	RC	111	11050	7725.02	60.28	Teb_Cut	linear
TARKWA	PN1337	RC	113	11050.03	7749.96	62.14	Teb_Cut	linear
TARKWA	PN1339	RC	117	11050.01	7774.98	65.31	Teb_Cut	linear
TARKWA	PN1349	RC	101	11023.89	7698.85	60.5	Teb_Cut	linear
TARKWA	PN1351	RC	101	11025	7724.99	60.31	Teb_Cut	linear
TARKWA	PN1353	RC	103	11024.99	7749.94	60.51	Teb_Cut	linear
TARKWA	PN1355	RC	104	11024.95	7774.86	60.76	Teb_Cut	linear
TARKWA	PN1401	RC	130	11100.02	7600	69.26	Teb_Cut	linear
TARKWA	PN1403	RC	130	11100	7624.99	66.51	Teb_Cut	linear
TARKWA	PN1405	RC	127	11100	7650	62.99	Teb_Cut	linear
TARKWA	PN1407	RC	126	11100.01	7675	59.94	Teb_Cut	linear
TARKWA	PN1417	RC	123	11074.97	7599.98	70.99	Teb_Cut	linear
TARKWA	PN1419	RC	123	11074.98	7624.99	67.69	Teb_Cut	linear
TARKWA	PN1421	RC	119	11074.97	7650	62.66	Teb_Cut	linear
TARKWA	PN1423	RC	117	11075.02	7675	59.82	Teb_Cut	linear
TARKWA	PN1433	RC	114	11050.03	7599.99	71.22	Teb_Cut	linear
TARKWA	PN1435	RC	115	11049.99	7624.99	67.28	Teb_Cut	linear
TARKWA	PN1437	RC	110	11050.01	7650	62.83	Teb_Cut	linear
TARKWA	PN1439	RC	110	11049.99	7675	60.58	Teb_Cut	linear
TARKWA	PN1449	RC	104	11025	7599.99	66.52	TEB	linear
TARKWA	PN1455	RC	100	11025	7675	60.67	Teb_Cut	linear
TARKWA	PN1501	RC	119	11099.96	7500	62.16	Teb_Cut	linear
TARKWA	PN1503	RC	136	11099.99	7525.02	66.87	Teb_Cut	linear
TARKWA	PN1505	RC	124	11105.27	7550.04	69.2	Teb_Cut	linear
TARKWA	PN1507	RC	130	11105.98	7575.01	69.72	Teb_Cut	linear
TARKWA	PN1517	RC	119	11075.02	7500	61.92	Teb_Cut	linear
TARKWA	PN1519	RC	122	11075.01	7525.01	62.94	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	PN1521	RC	111	11075	7550	63.27	Teb_Cut	linear
TARKWA	PN1523	RC	114	11075.11	7574.83	64.76	Teb_Cut	linear
TARKWA	PN1533	RC	90	11049.96	7499.99	62.47	TEB	linear
TARKWA	PN1535	RC	96	11049.99	7525.02	63.22	TEB	linear
TARKWA	PN1537	RC	105	11054.38	7542.59	63.23	TEB	linear
TARKWA	PN1539	RC	105	11050	7574.99	63.54	Teb_Cut	linear
TARKWA	PN1549	RC	81	11024.98	7499.97	63.52	TEB	linear
TARKWA	PN1551	RC	73	11025	7525.03	63.7	TEB	linear
TARKWA	PN1553	RC	95	11025	7549.99	63.99	TEB	linear
TARKWA	PN1555	RC	99	11025	7574.99	64.72	TEB	linear
TARKWA	PN1601	RC	80	11100	7399.98	60.92	Teb_Cut	linear
TARKWA	PN1603	RC	124	11100	7425.02	59.96	Teb_Cut	linear
TARKWA	PN1605	RC	125	11100	7450.02	61	Teb_Cut	linear
TARKWA	PN1607	RC	127	11100.02	7474.99	62.04	Teb_Cut	linear
TARKWA	PN1617	RC	115	11074.98	7400.03	62.38	Teb_Cut	linear
TARKWA	PN1619	RC	78	11075	7425	62.5	TEB	linear
TARKWA	PN1621	RC	81	11077.22	7455.66	60.48	TEB	linear
TARKWA	PN1623	RC	86	11075.07	7474.98	61.6	TEB	linear
TARKWA	PN1635	RC	70	11050	7425.01	61.87	TEB	linear
TARKWA	PN1637	RC	74	11049.97	7450.05	62.34	TEB	linear
TARKWA	PN1639	RC	80	11049.95	7475.03	62.34	TEB	linear
TARKWA	PN1649	RC	49	11025.44	7401.24	60.01	TEB	linear
TARKWA	PN1651	RC	54	11025	7425	57.66	TEB	linear
TARKWA	PN1653	RC	54	11012.5	7450	54.87	TEB	linear
TARKWA	PN1655	RC	78	11034.87	7474.34	62.75	TEB	linear
TARKWA	PN1707	RC	99	11100.03	7375	60.98	Teb_Cut	linear
TARKWA	PN1723	RC	99	11075.01	7377.01	62.82	Teb_Cut	linear
TARKWA	PPQ5	PQ	91.5	10991.03	10700.23	101.94	GDM	LINEAR
TARKWA	Q0001	RC	86	11009.527	8999.721	29.683	TEB	linear
TARKWA	Q0003	RC	86	11000.025	9024.863	29.679	TEB	linear
TARKWA	Q0005	RC	85	10999.815	9049.949	29.713	TEB	linear
TARKWA	Q0007	RC	39	11000.447	9074.947	29.383	TEB	linear
TARKWA	Q0017	RC	110	10974.98	8999.98	60.36	Teb_Cut	linear
TARKWA	Q0019	RC	111	10975	9025.01	60.5	Teb_Cut	linear
TARKWA	Q0021	RC	114	10975	9050.01	60.82	Teb_Cut	linear
TARKWA	Q0023	RC	111	10975	9075	60.73	Teb_Cut	linear
TARKWA	Q0033	RC	99	10950	9000	56.62	Teb_Cut	linear
TARKWA	Q0037	RC	107	10950	9050.01	59.73	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	Q0039	RC	106	10950	9074.99	59.95	Teb_Cut	linear
TARKWA	Q0049	RC	93	10925	9000	56.5	Teb_Cut	linear
TARKWA	Q0051	RC	94	10925.01	9025	56.88	Teb_Cut	linear
TARKWA	Q0053	RC	98	10925	9049.99	59.66	Teb_Cut	linear
TARKWA	Q0055	RC	95	10924.99	9075	57.18	Teb_Cut	linear
TARKWA	Q0101	RC	85	10999.649	9099.943	29.197	TEB	linear
TARKWA	Q0103	RC	84	10999.987	9125.034	29.745	TEB	linear
TARKWA	Q0105	RC	87	10999.762	9149.914	31.325	TEB	linear
TARKWA	Q0117	RC	79	10975.235	9099.925	29.901	TEB	linear
TARKWA	Q0119	RC	79	10974.997	9125.034	31.022	TEB	linear
TARKWA	Q0121	RC	80	10973.884	9149.951	31.031	TEB	linear
TARKWA	Q0133	RC	106	10950	9100.01	59.73	Teb_Cut	linear
TARKWA	Q0135	RC	105	10950	9124.99	59.51	Teb_Cut	linear
TARKWA	Q0137	RC	105	10950	9150.01	59.73	Teb_Cut	linear
TARKWA	Q0139	RC	107	10950	9174.98	60.45	Teb_Cut	linear
TARKWA	Q0149	RC	90	10919.97	9100.01	53.69	Teb_Cut	linear
TARKWA	Q0151	RC	101	10925	9124.99	60.72	Teb_Cut	linear
TARKWA	Q0153	RC	101	10925.01	9149.97	60.13	Teb_Cut	linear
TARKWA	Q0155	RC	101	10925	9174.98	60.71	Teb_Cut	linear
TARKWA	Q0249	RC	100	10925	9199.98	60.02	Teb_Cut	linear
TARKWA	Q0251	RC	100	10925	9224.97	59.19	Teb_Cut	linear
TARKWA	Q0335	RC	110	10950.127	9325.117	73.094	TEB	LINEAR
TARKWA	Q0337	RC	112	10950.133	9349.997	73.845	TEB	LINEAR
TARKWA	Q0339	RC	132	10950.039	9375.012	83.009	NEW TEB CUT 4	LINEAR
TARKWA	Q0349	RC	110	10924.972	9299.972	65.556	TEB	LINEAR
TARKWA	Q0353	RC	107	10925.102	9350.116	73.972	TEB	LINEAR
TARKWA	Q0355	RC	108	10925.072	9374.952	74.428	TEB	LINEAR
TARKWA	Q0449	RC	127	10925.037	9399.977	83.859	NEW TEB CUT 4	LINEAR
TARKWA	Q0451	RC	130	10925.073	9424.982	83.908	NEW TEB CUT 4	LINEAR
TARKWA	Q0935	RC	133	10950.037	9925.039	74.134	NEW TEB CUT 4	LINEAR
TARKWA	Q0951	RC	124	10925.026	9925.044	75.025	NEW TEB CUT 4	LINEAR
TARKWA	Q0953	RC	127	10925.032	9950.056	74.017	NEW TEB CUT 4	LINEAR
TARKWA	Q1049	RC	137	10925.04	10000.06	66.35	Teb12	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	Q1051	RC	116	10925	10025	61.06	Teb12	linear
TARKWA	Q1119	RC	125	10974.99	10124.99	78.37	RCM	LINEAR
TARKWA	Q1121	RC	125	10974.97	10149.98	80.59	RCM	LINEAR
TARKWA	Q1123	RC	125	10975.01	10175.02	79.52	RCM	LINEAR
TARKWA	Q1133	RC	123	10950.04	10100.25	76.01	RCM	LINEAR
TARKWA	Q1135	RC	118	10947.61	10122.69	77.78	RCM	LINEAR
TARKWA	Q1137	RC	119	10947.66	10147.13	79.15	RCM	LINEAR
TARKWA	Q1139	RC	121	10950	10175.01	81.01	RCM	LINEAR
TARKWA	Q1151	RC	112	10924.99	10124.98	77.85	RCM	LINEAR
TARKWA	Q1153	RC	109	10925	10150	73.27	RCM	LINEAR
TARKWA	Q1155	RC	43	10925.01	10175.02	72.47	RCM	LINEAR
TARKWA	Q1201	RC	64	11000	10199.99	79.85	RCM	LINEAR
TARKWA	Q1205	RC	123	10999.99	10249.98	83.91	RCM	LINEAR
TARKWA	Q1217	RC	64	10974.99	10199.99	79.94	RCM	LINEAR
TARKWA	Q1219	RC	57	10974.99	10224.99	80.73	RCM	LINEAR
TARKWA	Q1233	RC	46	10946.5	10204.39	72.13	RCM	LINEAR
TARKWA	Q1235	RC	49	10952.34	10224.1	72.01	RCM	LINEAR
TARKWA	Q1237	RC	44	10949.99	10249.99	68.74	RCM	LINEAR
TARKWA	Q1239	RC	45	10949.99	10274.99	68.51	RCM	LINEAR
TARKWA	Q1249	RC	37	10924.99	10199.99	68.94	RCM	LINEAR
TARKWA	Q1251	RC	39	10925.01	10225.02	69.04	RCM	LINEAR
TARKWA	Q1253	RC	37	10924.99	10249.99	68.94	RCM	LINEAR
TARKWA	Q1255	RC	57	10925.01	10275	87.4	RCM	LINEAR
TARKWA	Q1301	RC	75	10999.99	10299.99	87.16	RCM	LINEAR
TARKWA	Q1305	RC	66	10999.99	10349.98	73.09	RCM	LINEAR
TARKWA	Q1307	RC	66	11000.01	10375	73.34	RCM	LINEAR
TARKWA	Q1319	RC	60	10975.28	10325.4	72.55	RCM	LINEAR
TARKWA	Q1321	RC	59	10975.25	10350.41	72.53	RCM	LINEAR
TARKWA	Q1323	RC	59	10975.21	10375.4	72.9	RCM	LINEAR
TARKWA	Q1333	RC	44	10950	10300	68.75	RCM	LINEAR
TARKWA	Q1335	RC	54	10950.28	10325.36	72.67	RCM	LINEAR
TARKWA	Q1337	RC	54	10950.24	10350.38	72.69	RCM	LINEAR
TARKWA	Q1339	RC	52	10950.21	10375.38	72.58	RCM	LINEAR
TARKWA	Q1349	RC	42	10925.01	10300	90.08	RCM	LINEAR
TARKWA	Q1351	RC	59	10924.99	10324.99	87.83	RCM	LINEAR
TARKWA	Q1353	RC	43	10922.47	10348.79	72.32	RCM	LINEAR
TARKWA	Q1355	RC	49	10925.2	10375.35	74.47	RCM	LINEAR
TARKWA	Q1357	RC	58	10912.5	10300	91	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	Q1401	RC	65	10996.05	10392.76	73.22	RCM	LINEAR
TARKWA	Q1405	RC	70	11000	10450	74.36	RCM	LINEAR
TARKWA	Q1417	RC	60	10975.01	10400	72.88	RCM	LINEAR
TARKWA	Q1419	RC	63	10975.01	10425	73.57	RCM	LINEAR
TARKWA	Q1421	RC	65	10974.98	10450	73.77	RCM	LINEAR
TARKWA	Q1423	RC	61	10975	10464.94	74.14	RCM	LINEAR
TARKWA	Q1433	RC	57	10950.18	10400.37	72.83	RCM	LINEAR
TARKWA	Q1435	RC	54	10950	10425	73.02	RCM	LINEAR
TARKWA	Q1437	RC	54	10950	10450	73.61	RCM	LINEAR
TARKWA	Q1449	RC	49	10925.2	10400.34	74.41	RCM	LINEAR
TARKWA	Q1451	RC	48	10925.06	10425.4	74.88	RCM	LINEAR
TARKWA	Q1453	RC	48	10924.98	10450	75.47	RCM	LINEAR
TARKWA	Q1455	RC	50	10924.99	10467.64	75.9	RCM	LINEAR
TARKWA	Q1501	RC	81	10999.99	10500	89.93	RCM	LINEAR
TARKWA	Q1505	RC	85	10999.98	10549.99	92.13	RCM	LINEAR
TARKWA	Q1533	RC	69	10949.99	10500	89.4	RCM	LINEAR
TARKWA	Q1535	RC	67	10950	10524.98	91.55	RCM	LINEAR
TARKWA	Q1537	RC	67	10949.99	10550	93.18	RCM	LINEAR
TARKWA	Q1549	RC	67	10925	10499.98	95.69	RCM	LINEAR
TARKWA	Q1551	RC	64	10925	10525.01	96.11	RCM	LINEAR
TARKWA	Q1553	RC	64	10924.99	10549.99	96.71	RCM	LINEAR
TARKWA	Q1555	RC	65	10925	10574.98	98.64	RCM	LINEAR
TARKWA	Q1633	RC	80	10949.99	10600	103.67	RCM	LINEAR
TARKWA	Q1637	RC	83	10949.99	10649.99	106.91	RCM	LINEAR
TARKWA	Q1649	RC	72	10925	10600	104.87	RCM	LINEAR
TARKWA	Q1651	RC	77	10924.99	10625	107.81	RCM	LINEAR
TARKWA	Q1653	RC	75	10924.97	10649.99	107.45	RCM	LINEAR
TARKWA	Q1655	RC	72	10924.99	10674.99	104.54	RCM	LINEAR
TARKWA	Q1705	RC	100	10999.98	10750	104.44	RCM	LINEAR
TARKWA	Q1733	RC	78	10950.04	10699.94	101.79	RCM	LINEAR
TARKWA	Q1737	RC	74	10950.03	10743.55	96.59	RCM	LINEAR
TARKWA	Q1739	RC	76	10949.98	10775	100.29	RCM	LINEAR
TARKWA	Q1749	RC	69	10925	10699.99	102.13	RCM	LINEAR
TARKWA	Q1751	RC	68	10925	10724.99	99.98	RCM	LINEAR
TARKWA	Q1753	RC	66	10925	10749.99	97.5	RCM	LINEAR
TARKWA	Q1755	RC	67	10925	10775	101.57	RCM	LINEAR
TARKWA	Q1833	RC	79	10950	10800	101.01	RCM	LINEAR
TARKWA	Q1849	RC	68	10925.01	10800	99.33	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN0105	RC	83	10994.187	8945.462	29.947	TEB	linear
TARKWA	QN0107	RC	82	10997.749	8970.7	29.328	TEB	linear
TARKWA	QN0117	RC	116	10974.99	8900	67.09	Teb_Cut	linear
TARKWA	QN0119	RC	109	10974.99	8924.98	61.15	Teb_Cut	linear
TARKWA	QN0121	RC	109	10974.99	8949.99	61.41	Teb_Cut	linear
TARKWA	QN0123	RC	110	10974.98	8974.99	60.37	Teb_Cut	linear
TARKWA	QN0133	RC	101	10949.96	8900.04	60.34	Teb_Cut	linear
TARKWA	QN0135	RC	103	10950	8925	60.68	Teb_Cut	linear
TARKWA	QN0137	RC	102	10950.01	8950.01	60.48	Teb_Cut	linear
TARKWA	QN0139	RC	99	10950.02	8974.99	56.89	Teb_Cut	linear
TARKWA	QN0149	RC	96	10925	8900.02	62.92	Teb_Cut	linear
TARKWA	QN0151	RC	91	10924.98	8925.01	56.97	Teb_Cut	linear
TARKWA	QN0153	RC	93	10924.98	8950.02	57.42	Teb_Cut	linear
TARKWA	QN0155	RC	92	10925.02	8974.99	56.69	Teb_Cut	linear
TARKWA	QN0201	RC	125	11000	8800	70.04	Teb_Cut	linear
TARKWA	QN0217	RC	119	10974.99	8799.96	73.79	Teb_Cut	linear
TARKWA	QN0219	RC	113	10974.99	8825	65.77	Teb_Cut	linear
TARKWA	QN0221	RC	112	10975	8850	65.72	Teb_Cut	linear
TARKWA	QN0223	RC	114	10974.99	8875	66.07	Teb_Cut	linear
TARKWA	QN0233	RC	116	10950	8799.98	77.29	Teb_Cut	linear
TARKWA	QN0235	RC	106	10950.07	8825.05	66.22	Teb_Cut	linear
TARKWA	QN0237	RC	98	10950.04	8850.02	57.54	Teb_Cut	linear
TARKWA	QN0239	RC	98	10950.01	8875.01	57.5	Teb_Cut	linear
TARKWA	QN0249	RC	101	10925	8800	72.21	Teb_Cut	linear
TARKWA	QN0251	RC	93	10925.04	8825	63.07	Teb_Cut	linear
TARKWA	QN0253	RC	94	10925	8849.99	62.86	Teb_Cut	linear
TARKWA	QN0255	RC	95	10924.99	8874.98	62.89	Teb_Cut	linear
TARKWA	QN0301	RC	80	11000.037	8700.024	30.329	TEB	linear
TARKWA	QN0303	RC	115	11000	8724.99	64.63	Teb_Cut	linear
TARKWA	QN0305	RC	119	10999.99	8749.97	66.91	Teb_Cut	linear
TARKWA	QN0307	RC	122	11000	8774.99	68.78	Teb_Cut	linear
TARKWA	QN0317	RC	106	10975	8700.01	64.84	Teb_Cut	linear
TARKWA	QN0319	RC	109	10975	8724.98	65.77	Teb_Cut	linear
TARKWA	QN0321	RC	113	10975	8749.98	71.3	Teb_Cut	linear
TARKWA	QN0323	RC	118	10975	8775.02	72.91	Teb_Cut	linear
TARKWA	QN0333	RC	98	10950	8700	64.92	Teb_Cut	linear
TARKWA	QN0335	RC	104	10950	8724.99	68.8	Teb_Cut	linear
TARKWA	QN0337	RC	108	10950	8750	73.3	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN0339	RC	113	10950	8775	75.37	Teb_Cut	linear
TARKWA	QN0349	RC	95	10928	8699.99	64.94	Teb_Cut	linear
TARKWA	QN0351	RC	91	10925	8725	65.49	Teb_Cut	linear
TARKWA	QN0353	RC	99	10925	8749.98	71.12	Teb_Cut	linear
TARKWA	QN0355	RC	97	10922	8775.01	71.82	Teb_Cut	linear
TARKWA	QN0401	RC	114	11000	8600	68.16	Teb_Cut	linear
TARKWA	QN0403	RC	116	11000.01	8625.01	65.93	Teb_Cut	linear
TARKWA	QN0405	RC	111	10999.99	8649.99	64.38	Teb_Cut	linear
TARKWA	QN0417	RC	110	10974.99	8600	70.59	Teb_Cut	linear
TARKWA	QN0419	RC	111	10975.01	8625.01	67.78	Teb_Cut	linear
TARKWA	QN0421	RC	106	10975	8650.01	65.11	Teb_Cut	linear
TARKWA	QN0423	RC	106	10975	8674.99	64.73	Teb_Cut	linear
TARKWA	QN0433	RC	102	10950	8600	70.66	Teb_Cut	linear
TARKWA	QN0435	RC	100	10950	8625.01	68.15	Teb_Cut	linear
TARKWA	QN0437	RC	100	10950	8650.01	65.36	Teb_Cut	linear
TARKWA	QN0439	RC	97	10950	8675	64.7	Teb_Cut	linear
TARKWA	QN0501	RC	113	11000.13	8500.02	66.87	Teb_Cut	linear
TARKWA	QN0503	RC	113	11000	8525	67.97	Teb_Cut	linear
TARKWA	QN0505	RC	115	11000	8550	68.57	Teb_Cut	linear
TARKWA	QN0507	RC	116	11000.01	8575	69.31	Teb_Cut	linear
TARKWA	QN0517	RC	108	10974.99	8499.99	70.19	Teb_Cut	linear
TARKWA	QN0519	RC	108	10975.01	8525.01	70.43	Teb_Cut	linear
TARKWA	QN0521	RC	110	10975	8549.99	71.27	Teb_Cut	linear
TARKWA	QN0523	RC	112	10975.01	8574.99	71.96	Teb_Cut	linear
TARKWA	QN0533	RC	105	10950	8500	72.1	Teb_Cut	linear
TARKWA	QN0535	RC	104	10950	8525.01	71.88	Teb_Cut	linear
TARKWA	QN0537	RC	100	10950	8549.98	71.53	Teb_Cut	linear
TARKWA	QN0539	RC	102	10950	8575	71.89	Teb_Cut	linear
TARKWA	QN0601	RC	119	11000	8400	72.84	Teb_Cut	linear
TARKWA	QN0603	RC	116	11000.01	8425.02	71.07	Teb_Cut	linear
TARKWA	QN0605	RC	115	10999.98	8450	67.63	Teb_Cut	linear
TARKWA	QN0607	RC	114	11000.01	8475	67.52	Teb_Cut	linear
TARKWA	QN0617	RC	109	10975	8400.01	73.28	Teb_Cut	linear
TARKWA	QN0619	RC	108	10975	8425.01	73.11	Teb_Cut	linear
TARKWA	QN0621	RC	109	10975	8450	71.85	Teb_Cut	linear
TARKWA	QN0623	RC	109	10974.99	8475	70.53	Teb_Cut	linear
TARKWA	QN0633	RC	100	10950	8400.02	73.49	Teb_Cut	linear
TARKWA	QN0635	RC	100	10950	8424.98	73.4	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN0637	RC	101	10950	8449.99	73.55	Teb_Cut	linear
TARKWA	QN0639	RC	101	10950	8475	72.56	Teb_Cut	linear
TARKWA	QN0701	RC	114	11000.01	8300	72.75	Teb_Cut	linear
TARKWA	QN0703	RC	116	10999.98	8325	73.04	Teb_Cut	linear
TARKWA	QN0705	RC	115	11000	8350	72.83	Teb_Cut	linear
TARKWA	QN0707	RC	117	11000	8375	72.7	Teb_Cut	linear
TARKWA	QN0717	RC	106	10975	8300	73.23	Teb_Cut	linear
TARKWA	QN0719	RC	106	10975	8325	73.28	Teb_Cut	linear
TARKWA	QN0721	RC	109	10974.99	8349.99	73.16	Teb_Cut	linear
TARKWA	QN0723	RC	109	10974.99	8374.99	73.21	Teb_Cut	linear
TARKWA	QN0733	RC	98	10950	8300	72.41	Teb_Cut	linear
TARKWA	QN0735	RC	97	10949.4	8325.87	72.49	Teb_Cut	linear
TARKWA	QN0737	RC	97	10950	8350	72.97	Teb_Cut	linear
TARKWA	QN0739	RC	99	10950	8375	73.1	Teb_Cut	linear
TARKWA	QN0749	RC	88	10925	8300	71.33	TEB	linear
TARKWA	QN0751	RC	89	10925	8324.98	73.2	TEB	linear
TARKWA	QN0755	RC	90	10925.03	8374.98	72.9	TEB	linear
TARKWA	QN0801	RC	110	11000.01	8200.02	68.2	Teb_Cut	linear
TARKWA	QN0803	RC	110	11000	8225.01	70.79	Teb_Cut	linear
TARKWA	QN0805	RC	113	11000.01	8249.99	72.41	Teb_Cut	linear
TARKWA	QN0807	RC	113	11000.01	8275	73.03	Teb_Cut	linear
TARKWA	QN0817	RC	100	10975	8200	67.27	Teb_Cut	linear
TARKWA	QN0819	RC	103	10975	8225.02	69.72	Teb_Cut	linear
TARKWA	QN0821	RC	105	10975	8249.99	72.4	Teb_Cut	linear
TARKWA	QN0823	RC	105	10975	8275	72.47	Teb_Cut	linear
TARKWA	QN0833	RC	90	10950	8200	65.87	Teb_Cut	linear
TARKWA	QN0835	RC	90	10950	8225	67.81	Teb_Cut	linear
TARKWA	QN0837	RC	98	10958.4	8251.99	72.17	Teb_Cut	linear
TARKWA	QN0839	RC	96	10950	8275.01	72.8	Teb_Cut	linear
TARKWA	QN0849	RC	84	10925	8199.99	67.82	TEB	linear
TARKWA	QN0851	RC	87	10925	8225.01	68.45	TEB	linear
TARKWA	QN0853	RC	86	10925	8249.98	68.69	TEB	linear
TARKWA	QN0855	RC	88	10925	8275	71.68	TEB	linear
TARKWA	QN0901	RC	111	11000	8099.99	70.41	Teb_Cut	linear
TARKWA	QN0903	RC	109	11000	8125	69.18	Teb_Cut	linear
TARKWA	QN0905	RC	109	11000	8149.99	67.28	Teb_Cut	linear
TARKWA	QN0907	RC	108	11000	8174.99	67	Teb_Cut	linear
TARKWA	QN0917	RC	97	10975.01	8099.99	66	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN0919	RC	98	10974.99	8125.02	65.95	Teb_Cut	linear
TARKWA	QN0921	RC	97	10975	8150.01	65.72	Teb_Cut	linear
TARKWA	QN0923	RC	99	10975.74	8174.59	65.85	Teb_Cut	linear
TARKWA	QN0939	RC	88	10950	8175	64.88	Teb_Cut	linear
TARKWA	QN0949	RC	74	10925	8100	61.3	TEB	linear
TARKWA	QN0951	RC	75	10925	8125	61.4	TEB	linear
TARKWA	QN0953	RC	84	10929.4	8153.6	65.86	TEB	linear
TARKWA	QN0955	RC	84	10925	8174.98	65.93	TEB	linear
TARKWA	QN1001	RC	113	11000	7999.99	73.35	Teb_Cut	linear
TARKWA	QN1003	RC	113	11000	8024.99	72.98	Teb_Cut	linear
TARKWA	QN1005	RC	112	11000	8049.98	70.83	Teb_Cut	linear
TARKWA	QN1007	RC	110	11000	8075	71.37	Teb_Cut	linear
TARKWA	QN1017	RC	95	10975	8000.01	64.35	Teb_Cut	linear
TARKWA	QN1019	RC	95	10975	8025.02	64.69	Teb_Cut	linear
TARKWA	QN1021	RC	96	10975	8050.01	65.78	Teb_Cut	linear
TARKWA	QN1023	RC	97	10975	8075	66.34	Teb_Cut	linear
TARKWA	QN1033	RC	91	10962.48	8000	63.27	Teb_Cut	linear
TARKWA	QN1035	RC	91	10962.49	8025	63.9	Teb_Cut	linear
TARKWA	QN1037	RC	92	10962.49	8050.01	64.54	Teb_Cut	linear
TARKWA	QN1039	RC	91	10962.5	8075.01	64.67	Teb_Cut	linear
TARKWA	QN1049	RC	73	10925	8000	60.39	TEB	linear
TARKWA	QN1051	RC	74	10925	8025.01	60.54	TEB	linear
TARKWA	QN1053	RC	74	10925	8050.01	60.54	TEB	linear
TARKWA	QN1055	RC	74	10925	8075	60.81	TEB	linear
TARKWA	QN1101	RC	101	10999.99	7900	62.94	Teb_Cut	linear
TARKWA	QN1103	RC	101	11000.01	7925.02	64.44	Teb_Cut	linear
TARKWA	QN1105	RC	105	10999.97	7950	66	Teb_Cut	linear
TARKWA	QN1107	RC	109	11000.01	7975.01	70.43	Teb_Cut	linear
TARKWA	QN1117	RC	92	10975	7900	61.25	Teb_Cut	linear
TARKWA	QN1119	RC	92	10975	7925	61.92	Teb_Cut	linear
TARKWA	QN1121	RC	93	10975	7950	62.73	Teb_Cut	linear
TARKWA	QN1123	RC	94	10975	7975.02	63.6	Teb_Cut	linear
TARKWA	QN1133	RC	82	10950	7899.98	60.88	TEB	linear
TARKWA	QN1135	RC	82	10950	7925	60.47	TEB	linear
TARKWA	QN1137	RC	84	10950	7949.98	60.88	TEB	linear
TARKWA	QN1139	RC	44	10950	7974.99	60	TEB	linear
TARKWA	QN1139A	RC	82	10938.38	7974.99	61.12	TEB	linear
TARKWA	QN1149	RC	74	10925	7899.99	60.2	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN1151	RC	74	10925	7925.01	60.33	TEB	linear
TARKWA	QN1153	RC	73	10925	7950	60.49	TEB	linear
TARKWA	QN1155	RC	72	10925	7975.03	60.44	TEB	linear
TARKWA	QN1201	RC	77	10999.95	7799.95	60.68	Teb_Cut	linear
TARKWA	QN1203	RC	97	10999.96	7824.94	61.11	Teb_Cut	linear
TARKWA	QN1205	RC	101	11000.02	7850	62.66	Teb_Cut	linear
TARKWA	QN1207	RC	101	11000.01	7875	62.85	Teb_Cut	linear
TARKWA	QN1221	RC	89	10975	7850	60.55	Teb_Cut	linear
TARKWA	QN1223	RC	91	10975.02	7874.99	60.97	Teb_Cut	linear
TARKWA	QN1233	RC	80	10950	7800	59.72	TEB	linear
TARKWA	QN1239	RC	82	10950	7874.98	59.52	TEB	linear
TARKWA	QN1249	RC	69	10925	7800	60.28	TEB	linear
TARKWA	QN1251	RC	67	10925	7824.99	59.19	TEB	linear
TARKWA	QN1253	RC	69	10925	7850.02	59.91	TEB	linear
TARKWA	QN1255	RC	70	10925	7874.98	60.06	TEB	linear
TARKWA	QN1301	RC	92	11000	7700	60.5	Teb_Cut	linear
TARKWA	QN1303	RC	94	11000	7725.01	60.69	Teb_Cut	linear
TARKWA	QN1305	RC	95	11000.03	7750.02	60.5	Teb_Cut	linear
TARKWA	QN1307	RC	71	10999.43	7777.13	60.43	Teb_Cut	linear
TARKWA	QN1317	RC	88	10975.02	7699.98	64.98	TEB	linear
TARKWA	QN1319	RC	89	10974.99	7725	64.92	TEB	linear
TARKWA	QN1333	RC	75	10947.99	7700.03	63.59	TEB	linear
TARKWA	QN1335	RC	80	10949.97	7725.04	65.85	TEB	linear
TARKWA	QN1337	RC	79	10950	7750.01	64.08	TEB	linear
TARKWA	QN1339	RC	72	10939	7774.97	61.99	TEB	linear
TARKWA	QN1349	RC	46	10912.5	7700	51.35	TEB	linear
TARKWA	QN1351	RC	66	10925.01	7724.95	63.6	TEB	linear
TARKWA	QN1353	RC	69	10925	7750	63.48	TEB	linear
TARKWA	QN1355	RC	72	10924.97	7775	60.87	TEB	linear
TARKWA	QN1401	RC	72	11000	7599.97	64.87	TEB	linear
TARKWA	QN1403	RC	93	11000	7624.99	64.67	TEB	linear
TARKWA	QN1405	RC	94	11000	7650	64.5	TEB	linear
TARKWA	QN1407	RC	90	10999.2	7672.6	63	TEB	linear
TARKWA	QN1417	RC	60	10962.5	7600	52.2	TEB	linear
TARKWA	QN1419	RC	84	10975.01	7624.96	65.02	TEB	linear
TARKWA	QN1421	RC	85	10975.01	7649.96	64.89	TEB	linear
TARKWA	QN1423	RC	85	10974.98	7675.03	64.87	TEB	linear
TARKWA	QN1433	RC	55	10950.01	7599.99	51.31	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	QN1435	RC	57	10949.99	7625.01	51.7	TEB	linear
TARKWA	QN1437	RC	54	10937.5	7650.01	51.35	TEB	linear
TARKWA	QN1439	RC	74	10950.01	7674.96	63.3	TEB	linear
TARKWA	QN1449	RC	36	10925	7600	44.93	TEB	linear
TARKWA	QN1451	RC	41	10925	7625	46	TEB	linear
TARKWA	QN1453	RC	42	10923.45	7646.65	44.86	TEB	linear
TARKWA	QN1455	RC	50	10925.01	7675	51.38	TEB	linear
TARKWA	QN1501	RC	61	10997.85	7498.39	52.48	TEB	linear
TARKWA	QN1503	RC	86	11012.48	7525.03	64.18	TEB	linear
TARKWA	QN1505	RC	84	11000.01	7549.98	64.6	TEB	linear
TARKWA	QN1507	RC	93	11012.48	7575.05	64.64	TEB	linear
TARKWA	QN1517	RC	54	10979.59	7502.7	51.71	TEB	linear
TARKWA	QN1519	RC	58	10975	7525.01	51.66	TEB	linear
TARKWA	QN1521	RC	61	10974.99	7550.01	51.47	TEB	linear
TARKWA	QN1523	RC	57	10962.48	7575.05	51.44	TEB	linear
TARKWA	QN1533	RC	62	10950	7500	45.11	TEB	linear
TARKWA	QN1535	RC	41	10950	7524.99	45.49	TEB	linear
TARKWA	QN1537	RC	43	10947.23	7549.4	45.26	TEB	linear
TARKWA	QN1549	RC	81	10925.01	7499.99	45.08	TEB	linear
TARKWA	QN1551	RC	27	10925.01	7524.99	45.22	TEB	linear
TARKWA	QN1553	RC	32	10925	7550	45.3	TEB	linear
TARKWA	QN1601	RC	48	11012.53	7400.02	59.67	TEB	linear
TARKWA	QN1603	RC	45	11000.52	7429.34	56.22	TEB	linear
TARKWA	QN1605	RC	48	10999.99	7449.99	54.53	TEB	linear
TARKWA	QN1607	RC	90	11000.01	7474.99	52.79	TEB	linear
TARKWA	QN1617	RC	62	10975	7412.5	45.18	TEB	linear
TARKWA	QN1619	RC	63	10975	7425	44.83	TEB	linear
TARKWA	QN1621	RC	63	10970.45	7452.91	44.97	TEB	linear
TARKWA	QN1623	RC	42	10974.98	7474.99	49.14	TEB	linear
TARKWA	QN1635	RC	10	10950.04	7424.94	44.48	TEB	linear
TARKWA	QN1637	RC	22	10950.05	7450.03	45	TEB	linear
TARKWA	QN1639	RC	30	10950.01	7475	45.28	TEB	linear
TARKWA	QN1649	RC	48	10924.98	7400	51.58	TEB	linear
TARKWA	QN1651	RC	47	10924.97	7424.98	49.03	TEB	linear
TARKWA	QN1653	RC	8	10925.03	7450.02	45.69	TEB	linear
TARKWA	R0001	RC	89	10900.01	9000.01	60.85	Teb_Cut	linear
TARKWA	R0003	RC	90	10899.99	9024.99	59.46	Teb_Cut	linear
TARKWA	R0005	RC	84	10900.01	9050	53.9	Teb_Cut	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R0007	RC	86	10899.99	9075	53.71	Teb_Cut	linear
TARKWA	R0017	RC	92	10874.99	9000.02	71.57	TEB	linear
TARKWA	R0021	RC	93	10875.02	9049.99	70.87	TEB	linear
TARKWA	R0023	RC	95	10875.01	9075	71.07	TEB	linear
TARKWA	R0033	RC	82	10850	9000.01	69.11	TEB	linear
TARKWA	R0035	RC	83	10850	9025	70.32	TEB	linear
TARKWA	R0037	RC	85	10850.01	9049.99	70.77	TEB	linear
TARKWA	R0039	RC	87	10849.99	9075.01	70.78	TEB	linear
TARKWA	R0049	RC	72	10824.99	8999.98	70.23	TEB	linear
TARKWA	R0051	RC	72	10825	9024.99	70.52	TEB	linear
TARKWA	R0053	RC	75	10825.01	9050	70.42	TEB	linear
TARKWA	R0055	RC	75	10825.01	9074.99	70.58	TEB	linear
TARKWA	R0101	RC	86	10900	9100	53.77	Teb_Cut	linear
TARKWA	R0103	RC	87	10900.02	9125	53.88	Teb_Cut	linear
TARKWA	R0105	RC	95	10899.99	9150	62.9	Teb_Cut	linear
TARKWA	R0107	RC	96	10900.01	9175	62.05	Teb_Cut	linear
TARKWA	R0117	RC	96	10875.02	9100	70.81	TEB	linear
TARKWA	R0119	RC	62	10874.98	9125	54.03	Teb_Cut	linear
TARKWA	R0121	RC	79	10875.01	9150	53.88	Teb_Cut	linear
TARKWA	R0133	RC	88	10849.99	9100	70.82	TEB	linear
TARKWA	R0137	RC	90	10850.02	9150	71.82	TEB	linear
TARKWA	R0139	RC	90	10850	9175	72.37	TEB	linear
TARKWA	R0149	RC	78	10825.01	9100.04	71.1	TEB	linear
TARKWA	R0151	RC	78	10825	9124.98	71.24	TEB	linear
TARKWA	R0153	RC	81	10825.02	9150	71.61	TEB	linear
TARKWA	R0155	RC	84	10824.99	9174.99	75.84	TEB	linear
TARKWA	R0201	RC	96	10900.02	9199.99	60.79	Teb_Cut	linear
TARKWA	R0203	RC	92	10900.02	9224.98	58.64	Teb_Cut	linear
TARKWA	R0205	RC	94	10901.19	9250.64	58.45	Teb_Cut	linear
TARKWA	R0217	RC	80	10874.99	9200	53.41	Teb_Cut	linear
TARKWA	R0219	RC	81	10875.02	9225	53.88	Teb_Cut	linear
TARKWA	R0221	RC	86	10875	9250	57.07	Teb_Cut	linear
TARKWA	R0233	RC	72	10850.04	9200.01	52.91	Teb_Cut	linear
TARKWA	R0237	RC	69	10849.985	9250.048	47.753	TEB	LINEAR
TARKWA	R0253	RC	60	10824.997	9250.05	48.017	TEB	LINEAR
TARKWA	R0301	RC	70	10900.05	9303.06	66.148	TEB	LINEAR
TARKWA	R0305	RC	108	10900.056	9349.996	69.017	TEB	LINEAR
TARKWA	R0307	RC	99	10900.128	9374.977	74.334	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R0317	RC	98	10874.987	9299.957	67.286	TEB	LINEAR
TARKWA	R0319	RC	98	10875.011	9324.985	67.39	TEB	LINEAR
TARKWA	R0321	RC	100	10874.979	9349.977	67.49	TEB	LINEAR
TARKWA	R0323	RC	102	10875.019	9375.01	69.348	NEW TEB CUT 4	LINEAR
TARKWA	R0333	RC	93	10850.011	9300	67.62	TEB	LINEAR
TARKWA	R0335	RC	92	10850.037	9324.953	67.931	TEB	LINEAR
TARKWA	R0337	RC	91	10849.979	9349.952	68.019	TEB	LINEAR
TARKWA	R0339	RC	92	10849.996	9375.011	68.144	TEB	LINEAR
TARKWA	R0349	RC	86	10825.053	9304.515	68.946	TEB	LINEAR
TARKWA	R0351	RC	82	10825.099	9325.193	67.925	TEB	LINEAR
TARKWA	R0353	RC	83	10823.34	9346.665	68.32	TEB	LINEAR
TARKWA	R0355	RC	82	10825.071	9374.994	68.729	TEB	LINEAR
TARKWA	R0401	RC	122	10900.003	9400.019	83.94	NEW TEB CUT 4	LINEAR
TARKWA	R0403	RC	124	10900.035	9425.07	84.04	NEW TEB CUT 4	LINEAR
TARKWA	R0405	RC	127	10900.041	9450.04	84.074	NEW TEB CUT 4	LINEAR
TARKWA	R0407	RC	127	10900.054	9475.027	84.485	NEW TEB CUT 4	LINEAR
TARKWA	R0417	RC	102	10875	9400	76.939	NEW TEB CUT 4	LINEAR
TARKWA	R0419	RC	108	10875	9425	82.803	NEW TEB CUT 4	LINEAR
TARKWA	R0421	RC	118	10875.028	9450.037	84.729	NEW TEB CUT 4	LINEAR
TARKWA	R0423	RC	119	10875.038	9475.072	84.495	NEW TEB CUT 4	LINEAR
TARKWA	R0433	RC	95	10849.935	9399.943	69.836	TEB	LINEAR
TARKWA	R0435	RC	103	10849.984	9425.065	75.565	TEB	LINEAR
TARKWA	R0437	RC	107	10850.022	9450.032	79.157	TEB	LINEAR
TARKWA	R0439	RC	104	10849.97	9475.055	79.267	TEB	LINEAR
TARKWA	R0449	RC	82	10824.96	9400.014	68.671	TEB	LINEAR
TARKWA	R0451	RC	82	10824.988	9424.997	68.8	TEB	LINEAR
TARKWA	R0453	RC	84	10825.019	9450.013	69.928	TEB	LINEAR
TARKWA	R0455	RC	85	10825.057	9475.073	71.333	TEB	LINEAR
TARKWA	R0501	DES	113	10900	9500	84.391	TEB	LINEAR
TARKWA	R0503	DES	123	10900	9525	89.405	TEB	LINEAR
TARKWA	R0505	DES	124	10900	9550	90.964	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R0507	RC	124	10899	9574.994	89.803	TEB	LINEAR
TARKWA	R0517	RC	115	10875.011	9500.033	80.829	NEW TEB CUT 4	LINEAR
TARKWA	R0519	RC	111	10874.992	9525.01	79.596	NEW TEB CUT 4	LINEAR
TARKWA	R0521	RC	122	10875.051	9549.953	85.249	TEB	LINEAR
TARKWA	R0523	RC	124	10875.006	9574.959	89.983	TEB	LINEAR
TARKWA	R0533	RC	100	10849.903	9499.884	76.986	TEB	LINEAR
TARKWA	R0535	RC	103	10849.979	9525.018	78.114	TEB	LINEAR
TARKWA	R0537	RC	109	10849.978	9550.072	89.162	TEB	LINEAR
TARKWA	R0539	RC	117	10849.91	9574.914	89.357	TEB	LINEAR
TARKWA	R0549	RC	91	10825.027	9500.049	75.508	TEB	LINEAR
TARKWA	R0551	RC	94	10825.013	9525.035	79.31	TEB	LINEAR
TARKWA	R0553	RC	108	10824.99	9549.971	85.848	TEB	LINEAR
TARKWA	R0555	RC	108	10824.997	9575.006	89.602	TEB	LINEAR
TARKWA	R0603	RC	126	10900.015	9625.104	89.922	TEB	LINEAR
TARKWA	R0605	RC	127	10900.016	9650.02	89.574	TEB	LINEAR
TARKWA	R0617	RC	126	10874.978	9600.042	90.468	TEB	LINEAR
TARKWA	R0619	RC	132	10874.975	9625.018	90.585	TEB	LINEAR
TARKWA	R0621	RC	127	10874.998	9650.026	89.23	TEB	LINEAR
TARKWA	R0623	RC	124	10874.977	9674.921	87.932	TEB	LINEAR
TARKWA	R0633	RC	122	10849.934	9600.053	90.421	TEB	LINEAR
TARKWA	R0635	RC	126	10850.003	9625.053	90.733	TEB	LINEAR
TARKWA	R0637	RC	116	10849.951	9650.055	90.36	TEB	LINEAR
TARKWA	R0639	RC	113	10850.001	9675.015	83.722	TEB	LINEAR
TARKWA	R0649	RC	110	10825.026	9600.001	90.424	TEB	LINEAR
TARKWA	R0651	RC	118	10824.843	9625.077	90.804	TEB	LINEAR
TARKWA	R0653	RC	110	10824.922	9650.067	89.499	TEB	LINEAR
TARKWA	R0655	RC	103	10825	9675.032	80.437	TEB	LINEAR
TARKWA	R0717	RC	119	10874.999	9699.978	82.021	TEB	LINEAR
TARKWA	R0719	RC	114	10874.999	9724.95	75.127	TEB	LINEAR
TARKWA	R0721	RC	113	10875.03	9750.104	72.66	NEW TEB CUT 4	LINEAR
TARKWA	R0723	RC	112	10875.016	9775.076	72.418	NEW TEB CUT 4	LINEAR
TARKWA	R0733	RC	106	10850.001	9700.045	76.56	TEB	LINEAR
TARKWA	R0735	RC	106	10852.003	9725.078	73.649	TEB	LINEAR
TARKWA	R0737	RC	106	10850.045	9750.018	73	NEW TEB CUT 4	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R0739	RC	104	10850.011	9775.037	72.966	NEW TEB CUT 4	LINEAR
TARKWA	R0749	RC	100	10827.999	9700.012	75.161	TEB	LINEAR
TARKWA	R0751	RC	99	10827.997	9724.89	73.228	TEB	LINEAR
TARKWA	R0753	RC	100	10824.998	9749.978	73.18	NEW TEB CUT 4	LINEAR
TARKWA	R0755	RC	98	10825.001	9774.955	73.139	NEW TEB CUT 4	LINEAR
TARKWA	R0803	RC	116	10900.043	9825.107	73.176	NEW TEB CUT 4	LINEAR
TARKWA	R0805	RC	118	10900.023	9849.977	75.077	NEW TEB CUT 4	LINEAR
TARKWA	R0807	RC	118	10900.064	9875.05	73.514	NEW TEB CUT 4	LINEAR
TARKWA	R0817	RC	109	10875.011	9800.002	73.332	NEW TEB CUT 4	LINEAR
TARKWA	R0819	RC	114	10875.04	9825.054	76.1	NEW TEB CUT 4	LINEAR
TARKWA	R0821	RC	115	10875.02	9850.042	77.885	NEW TEB CUT 4	LINEAR
TARKWA	R0823	RC	114	10875.036	9875.081	76.157	NEW TEB CUT 4	LINEAR
TARKWA	R0833	RC	101	10850.034	9800.035	72.989	NEW TEB CUT 4	LINEAR
TARKWA	R0835	RC	109	10850.021	9825.025	78.516	NEW TEB CUT 4	LINEAR
TARKWA	R0837	RC	112	10850.055	9850.038	79.595	NEW TEB CUT 4	LINEAR
TARKWA	R0849	RC	98	10826	9796.411	73.439	NEW TEB CUT 4	LINEAR
TARKWA	R0851	RC	100	10824.998	9825.102	77.84	NEW TEB CUT 4	LINEAR
TARKWA	R0853	RC	99	10825.02	9850.02	76.01	Teb12	linear
TARKWA	R0901	RC	114	10900.076	9900.005	72.14	NEW TEB CUT 4	LINEAR
TARKWA	R0903	RC	101	10900.034	9925.024	74.091	NEW TEB CUT 4	LINEAR
TARKWA	R0917	RC	111	10875.042	9900.068	76.224	NEW TEB CUT 4	LINEAR
TARKWA	R0921	RC	82	10874.996	9949.995	60.777	TEB	LINEAR
TARKWA	R0937	RC	102	10850	9950.01	84.76	RCM	LINEAR
TARKWA	R0955	RC	105	10825.02	9975.01	89.95	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1001	RC	108	10900	9999.99	69.08	RCM	LINEAR
TARKWA	R1005	RC	97	10900	10050	72.98	RCM	LINEAR
TARKWA	R1021	RC	93	10875	10050.01	67.19	RCM	LINEAR
TARKWA	R1023	RC	89	10874.99	10074.99	66.24	RCM	LINEAR
TARKWA	R1033	RC	102	10849.99	9999.68	88.77	RCM	LINEAR
TARKWA	R1035	RC	106	10849.99	10025	88.79	RCM	LINEAR
TARKWA	R1037	RC	87	10849.94	10058.27	67.2	RCM	LINEAR
TARKWA	R1039	RC	80	10849.98	10074.99	66.96	RCM	LINEAR
TARKWA	R1049	RC	106	10825	10000	89.7	RCM	LINEAR
TARKWA	R1051	RC	71	10825.93	10020.84	89.85	RCM	LINEAR
TARKWA	R1053	RC	78	10824.96	10053.36	66.35	RCM	LINEAR
TARKWA	R1055	RC	28	10824.98	10074.99	66.16	RCM	LINEAR
TARKWA	R1101	RC	103	10899.99	10099.99	73.14	RCM	LINEAR
TARKWA	R1103	RC	104	10899.99	10124.99	73.04	RCM	LINEAR
TARKWA	R1105	RC	51	10901.73	10149.51	73.2	RCM	LINEAR
TARKWA	R1107	RC	33	10900	10175.01	66.23	RCM	LINEAR
TARKWA	R1117	RC	85	10874.99	10100.01	65.89	RCM	LINEAR
TARKWA	R1119	RC	47	10875.01	10124.97	66.14	RCM	LINEAR
TARKWA	R1121	RC	28	10874.99	10150	66.24	RCM	LINEAR
TARKWA	R1123	RC	66	10874.99	10174.97	66.85	RCM	LINEAR
TARKWA	R1133	RC	34	10850	10100	66	RCM	LINEAR
TARKWA	R1135	RC	24	10849.99	10125	66.11	RCM	LINEAR
TARKWA	R1137	RC	20	10850	10149.99	66.08	RCM	LINEAR
TARKWA	R1139	RC	18	10850	10174.99	66.09	RCM	LINEAR
TARKWA	R1149	RC	28	10824.99	10100	66.01	RCM	LINEAR
TARKWA	R1151	RC	18	10824.98	10125.01	65.76	RCM	LINEAR
TARKWA	R1153	RC	47	10825	10150.01	98.84	RCM	LINEAR
TARKWA	R1155	RC	48	10825.01	10175.01	98.18	RCM	LINEAR
TARKWA	R1163	RC	46	10812.5	10175	101.28	RCM	LINEAR
TARKWA	R1201	RC	33	10900	10200	66.63	RCM	LINEAR
TARKWA	R1203	RC	54	10900	10224.99	88.68	RCM	LINEAR
TARKWA	R1205	RC	57	10899.99	10249.99	91.34	RCM	LINEAR
TARKWA	R1207	RC	57	10899.99	10274.98	92.8	RCM	LINEAR
TARKWA	R1213	RC	53	10887.5	10250	92.77	RCM	LINEAR
TARKWA	R1217	RC	26	10874.99	10199.97	65.94	RCM	LINEAR
TARKWA	R1219	RC	50	10874.99	10224.99	91.74	RCM	LINEAR
TARKWA	R1221	RC	40	10874.99	10249.99	95.04	RCM	LINEAR
TARKWA	R1223	RC	56	10875	10275	97.93	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1231	RC	54	10862.5	10275	99.09	RCM	LINEAR
TARKWA	R1233	RC	18	10849.99	10200.01	66.23	RCM	LINEAR
TARKWA	R1235	RC	48	10849.99	10224.99	96.42	RCM	LINEAR
TARKWA	R1237	RC	50	10850	10250	99.71	RCM	LINEAR
TARKWA	R1239	RC	42	10850	10274.99	102.03	RCM	LINEAR
TARKWA	R1249	RC	48	10825	10199.98	99.13	RCM	LINEAR
TARKWA	R1251	RC	48	10824.98	10224.97	101.98	RCM	LINEAR
TARKWA	R1253	RC	49	10825	10250	104.07	RCM	LINEAR
TARKWA	R1254	RC	45	10825	10262.5	105.41	RCM	LINEAR
TARKWA	R1255	RC	56	10825	10275.03	106.62	RCM	LINEAR
TARKWA	R1256	RC	55	10824.99	10287.49	107.17	RCM	LINEAR
TARKWA	R1257	RC	50	10812.49	10199.98	101.55	RCM	LINEAR
TARKWA	R1259	RC	50	10812.49	10224.99	104.61	RCM	LINEAR
TARKWA	R1261	RC	49	10812.5	10249.99	106.12	RCM	LINEAR
TARKWA	R1262	RC	49	10812.5	10262.51	107.29	RCM	LINEAR
TARKWA	R1263	RC	46	10812.49	10274.98	108.45	RCM	LINEAR
TARKWA	R1264	RC	52	10812.5	10287.49	109.03	RCM	LINEAR
TARKWA	R1301	RC	44	10899.99	10300	92.49	RCM	LINEAR
TARKWA	R1303	RC	56	10900	10325	92.59	RCM	LINEAR
TARKWA	R1305	RC	56	10900.01	10350.01	92.41	RCM	LINEAR
TARKWA	R1309	RC	59	10887.5	10300	95.47	RCM	LINEAR
TARKWA	R1317	RC	45	10874.99	10300	98.81	RCM	LINEAR
TARKWA	R1319	RC	58	10875	10325	98.87	RCM	LINEAR
TARKWA	R1321	RC	57	10875.01	10350	97.83	RCM	LINEAR
TARKWA	R1323	RC	54	10875	10375	95.6	RCM	LINEAR
TARKWA	R1325	RC	57	10862.49	10299.99	101.71	RCM	LINEAR
TARKWA	R1333	RC	42	10850	10299.99	103.99	RCM	LINEAR
TARKWA	R1335	RC	54	10850	10325	102.87	RCM	LINEAR
TARKWA	R1337	RC	54	10850	10350	100.97	RCM	LINEAR
TARKWA	R1339	RC	53	10849.98	10375	98.66	RCM	LINEAR
TARKWA	R1341	RC	55	10837.49	10299.99	105.7	RCM	LINEAR
TARKWA	R1347	RC	51	10837.5	10374.99	101.05	RCM	LINEAR
TARKWA	R1349	RC	52	10825	10300	107.2	RCM	LINEAR
TARKWA	R1350	RC	53	10824.99	10312.51	106.96	RCM	LINEAR
TARKWA	R1351	RC	53	10825	10324.99	106.59	RCM	LINEAR
TARKWA	R1352	RC	51	10825.01	10337.48	105.34	RCM	LINEAR
TARKWA	R1353	RC	51	10824.99	10350	105.59	RCM	LINEAR
TARKWA	R1354	RC	51	10825	10362.49	104.49	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1355	RC	49	10824.99	10375	103.46	RCM	LINEAR
TARKWA	R1356	RC	48	10825	10387.49	101.87	RCM	LINEAR
TARKWA	R1357	RC	52	10812.5	10300.01	108.75	RCM	LINEAR
TARKWA	R1358	RC	51	10812.5	10312.5	108.95	RCM	LINEAR
TARKWA	R1359	RC	53	10812.5	10324.99	109.31	RCM	LINEAR
TARKWA	R1360	RC	50	10812.51	10337.47	107.4	RCM	LINEAR
TARKWA	R1361	RC	51	10812.49	10350	107.74	RCM	LINEAR
TARKWA	R1362	RC	50	10812.5	10362.48	107.11	RCM	LINEAR
TARKWA	R1363	RC	47	10812.5	10374.99	105.72	RCM	LINEAR
TARKWA	R1364	RC	45	10812.48	10387.52	104.3	RCM	LINEAR
TARKWA	R1401	RC	44	10900.19	10400.31	78.24	RCM	LINEAR
TARKWA	R1403	RC	44	10900.18	10425.3	78.78	RCM	LINEAR
TARKWA	R1405	RC	45	10900.13	10450.3	78.6	RCM	LINEAR
TARKWA	R1407	RC	45	10900.12	10474.55	78.64	RCM	LINEAR
TARKWA	R1417	RC	52	10875	10400	92.99	RCM	LINEAR
TARKWA	R1419	RC	54	10875	10424.99	94.27	RCM	LINEAR
TARKWA	R1420	RC	56	10875	10437.48	96.82	RCM	LINEAR
TARKWA	R1421	RC	62	10875	10450	102.46	RCM	LINEAR
TARKWA	R1422	RC	65	10874.99	10462.5	106.5	RCM	LINEAR
TARKWA	R1423	RC	69	10874.99	10475	108.87	RCM	LINEAR
TARKWA	R1424	RC	71	10875.03	10487.51	110.6	RCM	LINEAR
TARKWA	R1428	RC	53	10862.5	10437.47	97.66	RCM	LINEAR
TARKWA	R1429	RC	58	10862.49	10450.01	102.97	RCM	LINEAR
TARKWA	R1430	RC	62	10862.53	10462.5	107.2	RCM	LINEAR
TARKWA	R1431	RC	66	10862.5	10474.99	110.48	RCM	LINEAR
TARKWA	R1432	RC	53	10862.47	10487.48	113.22	RCM	LINEAR
TARKWA	R1433	RC	49	10849.99	10399.99	95.92	RCM	LINEAR
TARKWA	R1435	RC	37	10849.99	10425.01	95.12	RCM	LINEAR
TARKWA	R1436	RC	51	10850	10437.5	97.87	RCM	LINEAR
TARKWA	R1437	RC	55	10850.03	10449.82	102.58	RCM	LINEAR
TARKWA	R1438	RC	60	10850.02	10462.45	106.38	RCM	LINEAR
TARKWA	R1439	RC	63	10850.09	10475	110.51	RCM	LINEAR
TARKWA	R1440	RC	66	10849.97	10487.49	113.82	RCM	LINEAR
TARKWA	R1444	RC	49	10837.49	10437.49	98.29	RCM	LINEAR
TARKWA	R1445	RC	51	10837.5	10450	101.74	RCM	LINEAR
TARKWA	R1446	RC	55	10837.5	10462.5	106.17	RCM	LINEAR
TARKWA	R1447	RC	60	10837.5	10475.01	110.01	RCM	LINEAR
TARKWA	R1448	RC	61	10837.5	10487.5	113.18	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1449	RC	45	10825	10399.99	99.56	RCM	LINEAR
TARKWA	R1451	RC	46	10825	10425	97.73	RCM	LINEAR
TARKWA	R1452	RC	47	10825	10437.5	99.57	RCM	LINEAR
TARKWA	R1453	RC	47	10824.99	10449.99	101.27	RCM	LINEAR
TARKWA	R1454	RC	52	10824.98	10462.49	105.44	RCM	LINEAR
TARKWA	R1455	RC	55	10825	10475	108.79	RCM	LINEAR
TARKWA	R1456	RC	58	10825	10487.5	111.16	RCM	LINEAR
TARKWA	R1457	RC	44	10812.49	10400	101.73	RCM	LINEAR
TARKWA	R1458	RC	44	10812.51	10412.51	100.03	RCM	LINEAR
TARKWA	R1459	RC	42	10812.5	10425	99.55	RCM	LINEAR
TARKWA	R1460	RC	43	10812.49	10437.49	101.12	RCM	LINEAR
TARKWA	R1461	RC	46	10812.48	10449.98	102.32	RCM	LINEAR
TARKWA	R1462	RC	50	10812.49	10462.5	105.28	RCM	LINEAR
TARKWA	R1463	RC	52	10812.5	10475	108.02	RCM	LINEAR
TARKWA	R1464	RC	53	10812.5	10487.5	110.21	RCM	LINEAR
TARKWA	R1503	RC	62	10900	10525	103.66	RCM	LINEAR
TARKWA	R1505	RC	64	10899.99	10549.99	104.18	RCM	LINEAR
TARKWA	R1507	RC	64	10900.01	10575.02	104.37	RCM	LINEAR
TARKWA	R1514	RC	65	10887.5	10562.5	108.99	RCM	LINEAR
TARKWA	R1515	RC	68	10887.5	10575	109.47	RCM	LINEAR
TARKWA	R1516	RC	69	10887.49	10587.49	109.88	RCM	LINEAR
TARKWA	R1517	RC	75	10875	10499.98	111.83	RCM	LINEAR
TARKWA	R1518	RC	73	10875	10512.49	112.53	RCM	LINEAR
TARKWA	R1519	RC	74	10874.99	10524.99	112.98	RCM	LINEAR
TARKWA	R1520	RC	71	10875	10537.49	113.19	RCM	LINEAR
TARKWA	R1521	RC	72	10875	10549.99	113.16	RCM	LINEAR
TARKWA	R1522	RC	67	10874.99	10562.49	113.19	RCM	LINEAR
TARKWA	R1523	RC	66	10874.99	10574.99	112.97	RCM	LINEAR
TARKWA	R1524	RC	63	10875	10587.5	112.62	RCM	LINEAR
TARKWA	R1525	RC	71	10862.52	10500	114.82	RCM	LINEAR
TARKWA	R1526	RC	70	10862.5	10512.49	115.55	RCM	LINEAR
TARKWA	R1527	RC	72	10862.5	10525	115.98	RCM	LINEAR
TARKWA	R1528	RC	68	10862.5	10537.52	115.7	RCM	LINEAR
TARKWA	R1529	RC	68	10862.5	10550.02	115.47	RCM	LINEAR
TARKWA	R1530	RC	69	10862.51	10562.49	115.18	RCM	LINEAR
TARKWA	R1531	RC	61	10862.5	10574.99	114.86	RCM	LINEAR
TARKWA	R1532	RC	61	10862.5	10587.5	113.96	RCM	LINEAR
TARKWA	R1533	RC	68	10849.97	10499.98	116.04	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1534	RC	70	10849.99	10512.49	117.11	RCM	LINEAR
TARKWA	R1535	RC	70	10849.99	10525	116.9	RCM	LINEAR
TARKWA	R1536	RC	73	10850	10537.48	116.85	RCM	LINEAR
TARKWA	R1537	RC	67	10850	10549.99	116.99	RCM	LINEAR
TARKWA	R1538	RC	61	10850	10562.49	116.53	RCM	LINEAR
TARKWA	R1539	RC	60	10849.99	10575	115.76	RCM	LINEAR
TARKWA	R1540	RC	61	10850	10587.5	114.95	RCM	LINEAR
TARKWA	R1541	RC	65	10837.51	10500	115.53	RCM	LINEAR
TARKWA	R1542	RC	65	10837.5	10512.5	117.37	RCM	LINEAR
TARKWA	R1543	RC	68	10837.49	10525	118.33	RCM	LINEAR
TARKWA	R1544	RC	67	10837.48	10537.5	118.46	RCM	LINEAR
TARKWA	R1545	RC	66	10837.49	10549.99	118.12	RCM	LINEAR
TARKWA	R1546	RC	66	10837.5	10562.5	117.72	RCM	LINEAR
TARKWA	R1547	RC	66	10837.5	10574.98	117.27	RCM	LINEAR
TARKWA	R1548	RC	59	10837.51	10587.5	116.58	RCM	LINEAR
TARKWA	R1549	RC	59	10824.98	10499.98	114.14	RCM	LINEAR
TARKWA	R1550	RC	63	10824.99	10512.49	116.25	RCM	LINEAR
TARKWA	R1551	RC	67	10824.99	10524.98	118.19	RCM	LINEAR
TARKWA	R1552	RC	66	10825	10537.5	119	RCM	LINEAR
TARKWA	R1553	RC	65	10825.01	10550	119.12	RCM	LINEAR
TARKWA	R1554	RC	65	10825	10562.5	118.92	RCM	LINEAR
TARKWA	R1555	RC	55	10824.99	10574.99	118.42	RCM	LINEAR
TARKWA	R1556	RC	55	10824.99	10587.5	117.78	RCM	LINEAR
TARKWA	R1557	RC	55	10812.53	10500.01	112.55	RCM	LINEAR
TARKWA	R1558	RC	63	10812.5	10512.5	115.89	RCM	LINEAR
TARKWA	R1559	RC	60	10812.5	10525	117.86	RCM	LINEAR
TARKWA	R1560	RC	68	10812.5	10537.49	119.56	RCM	LINEAR
TARKWA	R1561	RC	67	10812.5	10549.99	120.07	RCM	LINEAR
TARKWA	R1562	RC	68	10812.52	10562.47	119.51	RCM	LINEAR
TARKWA	R1563	RC	53	10812.5	10574.99	119.16	RCM	LINEAR
TARKWA	R1564	RC	53	10812.49	10587.51	118.86	RCM	LINEAR
TARKWA	R1601	RC	66	10900	10600	105.97	RCM	LINEAR
TARKWA	R1603	RC	68	10899.99	10625.01	107.99	RCM	LINEAR
TARKWA	R1605	RC	66	10899.99	10649.99	107.26	RCM	LINEAR
TARKWA	R1607	RC	66	10899.99	10674.97	106.36	RCM	LINEAR
TARKWA	R1609	RC	66	10887.5	10600.01	110.18	RCM	LINEAR
TARKWA	R1610	RC	65	10887.5	10612.5	109.75	RCM	LINEAR
TARKWA	R1611	RC	65	10887.49	10624.98	109.58	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1612	RC	62	10887.5	10637.5	109.4	RCM	LINEAR
TARKWA	R1617	RC	64	10875	10600	111.93	RCM	LINEAR
TARKWA	R1618	RC	61	10875	10612.51	111.46	RCM	LINEAR
TARKWA	R1619	RC	61	10874.99	10624.98	110.88	RCM	LINEAR
TARKWA	R1620	RC	64	10874.99	10637.49	110.36	RCM	LINEAR
TARKWA	R1621	RC	60	10875	10649.99	109.45	RCM	LINEAR
TARKWA	R1623	RC	59	10874.99	10675.01	107.63	RCM	LINEAR
TARKWA	R1625	RC	61	10862.5	10599.99	113.36	RCM	LINEAR
TARKWA	R1626	RC	60	10862.5	10612.48	112.49	RCM	LINEAR
TARKWA	R1627	RC	61	10862.5	10624.99	111.99	RCM	LINEAR
TARKWA	R1628	RC	59	10862.5	10637.49	111.84	RCM	LINEAR
TARKWA	R1629	RC	58	10862.5	10650	111.11	RCM	LINEAR
TARKWA	R1630	RC	58	10862.5	10662.49	110.06	RCM	LINEAR
TARKWA	R1633	RC	58	10850	10599.99	114.53	RCM	LINEAR
TARKWA	R1634	RC	57	10850	10612.5	113.86	RCM	LINEAR
TARKWA	R1635	RC	55	10850	10624.99	113.2	RCM	LINEAR
TARKWA	R1636	RC	56	10850	10637.49	112.88	RCM	LINEAR
TARKWA	R1637	RC	56	10850	10650	112.18	RCM	LINEAR
TARKWA	R1638	RC	55	10850	10662.5	111.29	RCM	LINEAR
TARKWA	R1639	RC	51	10852.33	10672.93	107.65	RCM	LINEAR
TARKWA	R1641	RC	55	10837.5	10600	115.44	RCM	LINEAR
TARKWA	R1642	RC	55	10837.5	10612.5	115.1	RCM	LINEAR
TARKWA	R1643	RC	54	10837.5	10624.99	114.36	RCM	LINEAR
TARKWA	R1644	RC	52	10837.5	10637.49	113.86	RCM	LINEAR
TARKWA	R1645	RC	51	10837.5	10650	112.94	RCM	LINEAR
TARKWA	R1646	RC	51	10837.5	10662.5	112.18	RCM	LINEAR
TARKWA	R1649	RC	52	10825	10599.99	116.99	RCM	LINEAR
TARKWA	R1650	RC	52	10824.99	10612.5	116.4	RCM	LINEAR
TARKWA	R1651	RC	54	10825	10624.99	116.25	RCM	LINEAR
TARKWA	R1652	RC	51	10824.99	10637.49	115.29	RCM	LINEAR
TARKWA	R1653	RC	49	10825	10650	114.48	RCM	LINEAR
TARKWA	R1654	RC	48	10825	10662.5	113.38	RCM	LINEAR
TARKWA	R1657	RC	54	10812.49	10600	118.51	RCM	LINEAR
TARKWA	R1658	RC	51	10812.5	10612.49	117.78	RCM	LINEAR
TARKWA	R1659	RC	51	10812.5	10624.99	116.71	RCM	LINEAR
TARKWA	R1660	RC	44	10812.5	10637.5	116.34	RCM	LINEAR
TARKWA	R1661	RC	47	10812.5	10650	115.4	RCM	LINEAR
TARKWA	R1662	RC	48	10812.5	10662.51	114.06	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	R1701	RC	64	10900	10699.99	105.73	RCM	LINEAR
TARKWA	R1703	RC	61	10899.99	10724.98	102.36	RCM	LINEAR
TARKWA	R1705	RC	58	10900	10750	100.63	RCM	LINEAR
TARKWA	R1707	RC	56	10899.99	10774.99	98.15	RCM	LINEAR
TARKWA	R1717	RC	58	10875	10699.98	106.73	RCM	LINEAR
TARKWA	R1719	RC	55	10874.99	10724.99	104.9	RCM	LINEAR
TARKWA	R1721	RC	51	10875	10750	102.77	RCM	LINEAR
TARKWA	R1723	RC	49	10874.98	10774.99	100.72	RCM	LINEAR
TARKWA	R1733	RC	53	10850	10699.98	107.8	RCM	LINEAR
TARKWA	R1735	RC	49	10849.99	10725	105.77	RCM	LINEAR
TARKWA	R1737	RC	44	10850	10750	102.32	RCM	LINEAR
TARKWA	R1739	RC	46	10852.99	10771.51	99.54	RCM	LINEAR
TARKWA	R1801	RC	46	10900	10800	99.12	RCM	LINEAR
TARKWA	R1817	RC	48	10875	10799.99	98.8	RCM	LINEAR
TARKWA	R1833	RC	43	10850.01	10800	98.38	RCM	LINEAR
TARKWA	R1849	RC	38	10825	10800	98.85	RCM	LINEAR
TARKWA	RN0101	RC	89	10900.03	8900.08	62.58	Teb_Cut	linear
TARKWA	RN0103	RC	89	10899.98	8924.98	62.6	Teb_Cut	linear
TARKWA	RN0105	RC	92	10900	8950.1	62.9	Teb_Cut	linear
TARKWA	RN0107	RC	91	10900	8974.99	62.85	Teb_Cut	linear
TARKWA	RN0117	RC	85	10877.57	8893.2	68.53	TEB	linear
TARKWA	RN0119	RC	84	10874.99	8925	68.25	TEB	linear
TARKWA	RN0121	RC	87	10875	8950	68.66	TEB	linear
TARKWA	RN0123	RC	90	10875	8975	70.32	TEB	linear
TARKWA	RN0133	RC	77	10850	8900	69.8	TEB	linear
TARKWA	RN0135	RC	77	10850	8925	69.71	TEB	linear
TARKWA	RN0137	RC	78	10849.99	8950.01	68.93	TEB	linear
TARKWA	RN0139	RC	79	10850.02	8975	69.39	TEB	linear
TARKWA	RN0149	RC	70	10825	8900	73.7	TEB	linear
TARKWA	RN0151	RC	70	10825.02	8925	73.23	TEB	linear
TARKWA	RN0153	RC	70	10824.99	8950.01	72.16	TEB	linear
TARKWA	RN0155	RC	72	10825	8975	70.96	TEB	linear
TARKWA	RN0205	RC	85	10900.03	8850.11	62.99	Teb_Cut	linear
TARKWA	RN0207	RC	88	10900	8875	62.86	Teb_Cut	linear
TARKWA	RN0217	RC	79	10874.99	8800	67.47	TEB	linear
TARKWA	RN0219	RC	80	10874.99	8825	67.77	TEB	linear
TARKWA	RN0221	RC	83	10875.16	8846.53	68.53	TEB	linear
TARKWA	RN0223	RC	83	10874.98	8875	68.3	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN0233	RC	70	10849.99	8800	68.69	TEB	linear
TARKWA	RN0235	RC	71	10850.01	8825	69.07	TEB	linear
TARKWA	RN0237	RC	76	10850.02	8850.01	69.46	TEB	linear
TARKWA	RN0239	RC	76	10850	8875	69.72	TEB	linear
TARKWA	RN0249	RC	65	10825.01	8800	71.36	TEB	linear
TARKWA	RN0251	RC	65	10825	8825	73.17	TEB	linear
TARKWA	RN0253	RC	67	10825	8850	72.41	TEB	linear
TARKWA	RN0255	RC	67	10825.01	8875.01	72.66	TEB	linear
TARKWA	RN0317	RC	80	10875.01	8700	67.26	TEB	linear
TARKWA	RN0319	RC	77	10874.99	8725	66.65	TEB	linear
TARKWA	RN0321	RC	85	10875.01	8750	66.57	TEB	linear
TARKWA	RN0323	RC	77	10874.98	8775	66.95	TEB	linear
TARKWA	RN0333	RC	69	10849.99	8700.01	68.81	TEB	linear
TARKWA	RN0335	RC	68	10850	8725	68.19	TEB	linear
TARKWA	RN0337	RC	68	10850.03	8750.01	68.25	TEB	linear
TARKWA	RN0339	RC	70	10850.01	8775	68.75	TEB	linear
TARKWA	RN0349	RC	51	10825	8700	78.44	TEB	linear
TARKWA	RN0350	RC	45	10825	8712.5	54.6	TEB	linear
TARKWA	RN0351	RC	63	10825	8725.01	71.66	TEB	linear
TARKWA	RN0353	RC	63	10824.99	8750.01	71.67	TEB	linear
TARKWA	RN0355A	RC	64	10825	8775	71.66	TEB	linear
TARKWA	RN0401	RC	89	10900	8599.99	67.36	TEB	linear
TARKWA	RN0403	RC	78	10900	8625	68.97	TEB	linear
TARKWA	RN0403A	RC	85	10903.37	8617.87	68.18	TEB	linear
TARKWA	RN0405	RC	84	10900	8650	67.82	TEB	linear
TARKWA	RN0407	RC	84	10900	8674.99	65.97	TEB	linear
TARKWA	RN0417	RC	78	10875	8599.97	68.78	TEB	linear
TARKWA	RN0419	RC	76	10875	8625.01	67.7	TEB	linear
TARKWA	RN0421	RC	79	10875.01	8649.99	68.4	TEB	linear
TARKWA	RN0423	RC	79	10875.01	8674.99	68.1	TEB	linear
TARKWA	RN0433	RC	75	10850	8599.99	73.67	TEB	linear
TARKWA	RN0435	RC	74	10850	8625.02	72.91	TEB	linear
TARKWA	RN0437	RC	75	10849.99	8650.01	72.87	TEB	linear
TARKWA	RN0439	RC	72	10850	8675	70.12	TEB	linear
TARKWA	RN0449	RC	47	10825	8599.99	77.66	RCT	LINEAR
TARKWA	RN0450	RC	40	10825	8612.49	53.61	TEB	linear
TARKWA	RN0451	RC	48	10825	8624.99	77.21	RCT	LINEAR
TARKWA	RN0452	RC	41	10825	8637.5	53.91	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN0453	RC	50	10825	8650.01	76.9	TEB	linear
TARKWA	RN0454	RC	43	10825	8662.41	54.48	TEB	linear
TARKWA	RN0455	RC	50	10824.99	8675.02	77.24	TEB	linear
TARKWA	RN0456	RC	43	10825	8687.52	54.66	TEB	linear
TARKWA	RN0501	RC	92	10900.01	8500.01	69.42	TEB	linear
TARKWA	RN0503	RC	90	10900.01	8525.03	69.63	TEB	linear
TARKWA	RN0505	RC	88	10900	8550	69.08	TEB	linear
TARKWA	RN0507	RC	88	10900	8575.01	68.25	TEB	linear
TARKWA	RN0517	RC	79	10875	8500.02	77.82	TEB	linear
TARKWA	RN0519	RC	82	10874.99	8524.98	72.65	TEB	linear
TARKWA	RN0521	RC	83	10875	8550	73.9	TEB	linear
TARKWA	RN0523	RC	78	10875	8575.01	68.59	TEB	linear
TARKWA	RN0533	RC	69	10850	8499.99	77.13	TEB	linear
TARKWA	RN0535	RC	75	10850	8525	76.76	TEB	linear
TARKWA	RN0537	RC	72	10850	8549.99	75.05	TEB	linear
TARKWA	RN0539	RC	72	10850	8575.01	75.05	TEB	linear
TARKWA	RN0549	RC	44	10825	8499.98	77.81	TEB	linear
TARKWA	RN0550	RC	40	10825	8512.5	53.82	TEB	linear
TARKWA	RN0551	RC	45	10825	8525.02	77.47	TEB	linear
TARKWA	RN0552	RC	40	10825	8537.5	54.07	TEB	linear
TARKWA	RN0553	RC	48	10825	8549.98	78.09	TEB	linear
TARKWA	RN0554	RC	39	10824.99	8562.52	53.68	TEB	linear
TARKWA	RN0555	RC	47	10825	8574.99	77.79	RCT	LINEAR
TARKWA	RN0556	RC	41	10824.98	8587.5	53.55	TEB	linear
TARKWA	RN0601	RC	82	10900	8400.02	72.07	TEB	linear
TARKWA	RN0603	RC	83	10900.03	8425.02	73.05	TEB	linear
TARKWA	RN0605	RC	83	10900	8449.98	72.35	TEB	linear
TARKWA	RN0607	RC	82	10899.99	8474.99	70.35	TEB	linear
TARKWA	RN0617	RC	73	10875	8400	71.91	TEB	linear
TARKWA	RN0619	RC	72	10875	8425.01	72.38	TEB	linear
TARKWA	RN0621	RC	78	10875.01	8449.99	76.23	TEB	linear
TARKWA	RN0623	RC	79	10875	8475.02	76.44	TEB	linear
TARKWA	RN0633	RC	49	10850	8399.99	76.1	RCT	LINEAR
TARKWA	RN0634	RC	46	10850	8412.52	54.02	TEB	linear
TARKWA	RN0635	RC	63	10850.02	8425	71.66	TEB	linear
TARKWA	RN0637	RC	67	10850.01	8450	75.06	TEB	linear
TARKWA	RN0639	RC	69	10850	8475.01	76.91	TEB	linear
TARKWA	RN0649	RC	41	10825.01	8400.01	77.3	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN0650	RC	36	10825	8412.5	53.93	TEB	linear
TARKWA	RN0651	RC	41	10825	8425	77.13	RCT	LINEAR
TARKWA	RN0652	RC	36	10825	8437.51	53.96	TEB	linear
TARKWA	RN0653	RC	41	10825	8449.98	77.14	TEB	linear
TARKWA	RN0654	RC	37	10825	8462.54	53.95	TEB	linear
TARKWA	RN0655	RC	44	10825	8475	77.29	TEB	linear
TARKWA	RN0656	RC	37	10825	8487.49	53.73	TEB	linear
TARKWA	RN0701	RC	77	10900	8299.98	66.8	TEB	linear
TARKWA	RN0703	RC	84	10900.01	8325.02	67.86	TEB	linear
TARKWA	RN0705	RC	77	10900	8350	67.68	TEB	linear
TARKWA	RN0707	RC	81	10900	8375.01	70.98	TEB	linear
TARKWA	RN0717	RC	65	10875	8299.99	65.67	TEB	linear
TARKWA	RN0719	RC	66	10874.99	8325.02	66.36	TEB	linear
TARKWA	RN0721	RC	67	10874.98	8350.02	68.62	TEB	linear
TARKWA	RN0723	RC	71	10875.01	8375.01	72.29	TEB	linear
TARKWA	RN0733	RC	48	10850	8300	76.43	RCT	LINEAR
TARKWA	RN0734	RC	44	10850	8312.5	54.31	TEB	linear
TARKWA	RN0735	RC	49	10850	8325	78.03	RCT	LINEAR
TARKWA	RN0736	RC	43	10850	8337.5	53.76	TEB	linear
TARKWA	RN0737	RC	50	10850	8350	77.5	RCT	LINEAR
TARKWA	RN0738	RC	43	10850.01	8362.49	53.98	TEB	linear
TARKWA	RN0739	RC	48	10849.99	8374.99	75.36	RCT	LINEAR
TARKWA	RN0740	RC	44	10850	8389.99	54.16	TEB	linear
TARKWA	RN0749	RC	39	10825	8300	77.49	RCT	LINEAR
TARKWA	RN0750	RC	32	10825.01	8312.5	53.87	TEB	linear
TARKWA	RN0751	RC	39	10825	8324.98	77.59	RCT	LINEAR
TARKWA	RN0752	RC	33	10825.01	8337.48	53.79	TEB	linear
TARKWA	RN0753	RC	39	10825	8349.98	77.44	RCT	LINEAR
TARKWA	RN0754	RC	33	10825.01	8362.49	53.59	TEB	linear
TARKWA	RN0755	RC	40	10825	8374.99	77.11	RCT	LINEAR
TARKWA	RN0756	RC	35	10825	8387.49	53.98	TEB	linear
TARKWA	RN0801	RC	74	10900	8200	64.51	TEB	linear
TARKWA	RN0803	RC	74	10900	8225.01	66.93	TEB	linear
TARKWA	RN0805	RC	76	10900	8250	66.66	TEB	linear
TARKWA	RN0807	RC	75	10900	8275	66.3	TEB	linear
TARKWA	RN0817	RC	60	10874.99	8200.06	63.3	TEB	linear
TARKWA	RN0819	RC	65	10875	8225	66.25	TEB	linear
TARKWA	RN0821	RC	64	10875	8250.01	66	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN0823	RC	63	10875	8275.01	66	TEB	linear
TARKWA	RN0833	RC	45	10850	8200	76.74	RCT	LINEAR
TARKWA	RN0834	RC	40	10850	8212.48	53.98	TEB	linear
TARKWA	RN0835	RC	45	10850.01	8224.95	74.69	TEB	linear
TARKWA	RN0836	RC	42	10850.02	8237.46	54.22	TEB	linear
TARKWA	RN0837	RC	45	10850.03	8249.93	75.48	TEB	linear
TARKWA	RN0838	RC	44	10850	8262.5	54.45	TEB	linear
TARKWA	RN0839	RC	48	10848.55	8278.84	77.9	TEB	linear
TARKWA	RN0840	RC	43	10850	8287.5	54.45	TEB	linear
TARKWA	RN0849	RC	35	10824.99	8200.02	77.33	RCT	LINEAR
TARKWA	RN0850	RC	32	10825.01	8212.54	53.78	TEB	linear
TARKWA	RN0851	RC	37	10825	8225	77.39	RCT	LINEAR
TARKWA	RN0852	RC	31	10825	8237.49	53.92	TEB	linear
TARKWA	RN0853	RC	37	10824.99	8250	77.31	RCT	LINEAR
TARKWA	RN0854	RC	33	10825.02	8262.5	54.09	TEB	linear
TARKWA	RN0855	RC	39	10824.99	8274.99	77.87	RCT	LINEAR
TARKWA	RN0856	RC	38	10825.01	8287.49	54.07	TEB	linear
TARKWA	RN0901A	RC	62	10900	8100.01	69.16	RCT	LINEAR
TARKWA	RN0903	RC	60	10900	8125.01	69.29	RCT	LINEAR
TARKWA	RN0904	RC	46	10900	8137.51	53.5	TEB	linear
TARKWA	RN0905	RC	71	10900	8149.97	61.23	TEB	linear
TARKWA	RN0907	RC	70	10900	8175.02	62.82	TEB	linear
TARKWA	RN0917	RC	48	10875	8100	71.24	RCT	LINEAR
TARKWA	RN0918	RC	48	10874.99	8112.53	53.98	TEB	linear
TARKWA	RN0919	RC	49	10874.99	8125	71.67	RCT	LINEAR
TARKWA	RN0920	RC	47	10875.01	8137.47	53.34	TEB	linear
TARKWA	RN0921	RC	49	10875	8149.99	70.62	RCT	LINEAR
TARKWA	RN0922	RC	49	10875	8165.49	53.93	TEB	linear
TARKWA	RN0923	RC	48	10875	8175	71.42	RCT	LINEAR
TARKWA	RN0924	RC	49	10875.01	8187.49	54.21	TEB	linear
TARKWA	RN0933	RC	43	10850	8099.99	76.53	RCT	LINEAR
TARKWA	RN0934	RC	39	10850	8112.48	53.46	TEB	linear
TARKWA	RN0935	RC	44	10849.99	8124.99	76.58	RCT	LINEAR
TARKWA	RN0936	RC	39	10850	8137.49	53.38	TEB	linear
TARKWA	RN0937	RC	44	10850	8150	76.74	RCT	LINEAR
TARKWA	RN0938	RC	41	10850	8162.53	53.31	TEB	linear
TARKWA	RN0939	RC	44	10849.99	8174.99	76.52	RCT	LINEAR
TARKWA	RN0940	RC	40	10850	8187.48	54.25	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN0949	RC	32	10825	8100.01	76.96	RCT	LINEAR
TARKWA	RN0950	RC	27	10825	8112.5	53.7	TEB	linear
TARKWA	RN0951	RC	33	10825	8124.99	77.7	RCT	LINEAR
TARKWA	RN0952	RC	29	10825	8137.5	54.14	TEB	linear
TARKWA	RN0953	RC	34	10825	8150	77.36	RCT	LINEAR
TARKWA	RN0954	RC	30	10824.99	8162.46	53.73	TEB	linear
TARKWA	RN0955	RC	34	10824.99	8174.99	77.26	RCT	LINEAR
TARKWA	RN0956	RC	31	10825	8187.5	53.89	TEB	linear
TARKWA	RN1001A	RC	71	10900	7999.99	68.64	RCT	LINEAR
TARKWA	RN1003	RC	53	10900	8024.99	68.73	RCT	LINEAR
TARKWA	RN1004	RC	57	10900.01	8037.52	53.91	TEB	linear
TARKWA	RN1005	RC	53	10900	8049.99	68.87	RCT	LINEAR
TARKWA	RN1006	RC	43	10900	8062.51	53.68	TEB	linear
TARKWA	RN1007	RC	72	10900	8074.99	68.78	RCT	LINEAR
TARKWA	RN1009	RC	51	10887.49	7999.98	53.85	TEB	linear
TARKWA	RN1017	RC	50	10875.01	8000.11	53.99	TEB	linear
TARKWA	RN1018	RC	50	10874.99	8012.48	53.72	TEB	linear
TARKWA	RN1019	RC	51	10875	8025	76.44	RCT	LINEAR
TARKWA	RN1020	RC	48	10875	8037.51	54.5	TEB	linear
TARKWA	RN1021	RC	48	10875	8053.45	72.91	RCT	LINEAR
TARKWA	RN1022	RC	50	10875	8062.49	54.53	TEB	linear
TARKWA	RN1023	RC	47	10872.78	8078.41	72.4	RCT	LINEAR
TARKWA	RN1024	RC	50	10875	8087.48	54.08	TEB	linear
TARKWA	RN1025	RC	40	10862.5	8000.01	53.66	TEB	linear
TARKWA	RN1033	RC	40	10850	7999.98	77.15	RCT	LINEAR
TARKWA	RN1034	RC	40	10850.01	8012.55	53.6	TEB	linear
TARKWA	RN1035	RC	41	10850	8024.99	77.72	RCT	LINEAR
TARKWA	RN1036	RC	39	10850	8037.47	53.63	TEB	linear
TARKWA	RN1037	RC	44	10849.99	8050	77.97	RCT	LINEAR
TARKWA	RN1038	RC	39	10850	8062.5	54.41	TEB	linear
TARKWA	RN1039	RC	41	10850.01	8075	75.54	RCT	LINEAR
TARKWA	RN1040	RC	40	10850	8087.46	54.08	TEB	linear
TARKWA	RN1049A	RC	51	10832.07	7999.3	77.97	RCT	LINEAR
TARKWA	RN1050	RC	25	10825	8012.52	53.93	TEB	linear
TARKWA	RN1051	RC	33	10830.04	8024.99	78.04	RCT	LINEAR
TARKWA	RN1053	RC	32	10825.44	8050.43	77.81	RCT	LINEAR
TARKWA	RN1054	RC	28	10825	8062.47	54.2	TEB	linear
TARKWA	RN1055	RC	31	10825.1	8075.52	77.14	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN1056	RC	28	10825	8087.49	54.21	TEB	linear
TARKWA	RN1101A	RC	68	10899.99	7900	68.53	RCT	LINEAR
TARKWA	RN1102	RC	55	10899.99	7912.5	53.92	TEB	linear
TARKWA	RN1103	RC	50	10899.99	7924.99	69.23	RCT	LINEAR
TARKWA	RN1104	RC	58	10900	7937.5	54.54	TEB	linear
TARKWA	RN1105	RC	53	10901.81	7951.02	67.99	RCT	LINEAR
TARKWA	RN1106	RC	56	10900	7962.49	54.8	TEB	linear
TARKWA	RN1107	RC	52	10899.99	7974.99	68.57	RCT	LINEAR
TARKWA	RN1108	RC	57	10899.99	7987.48	54.06	TEB	linear
TARKWA	RN1109	RC	50	10887.52	7900.01	54.01	TEB	linear
TARKWA	RN1110	RC	49	10887.5	7912.48	53.97	TEB	linear
TARKWA	RN1111	RC	50	10887.5	7925	53.96	TEB	linear
TARKWA	RN1112	RC	51	10887.5	7937.52	54.31	TEB	linear
TARKWA	RN1113	RC	50	10887.5	7949.98	54.61	TEB	linear
TARKWA	RN1114	RC	52	10887.5	7962.49	54.89	TEB	linear
TARKWA	RN1115	RC	52	10887.5	7974.99	54.8	TEB	linear
TARKWA	RN1116	RC	51	10887.5	7987.5	54.11	TEB	linear
TARKWA	RN1117	RC	39	10874.48	7899.54	68.91	RCT	LINEAR
TARKWA	RN1118	RC	47	10874.98	7912.47	53.86	TEB	linear
TARKWA	RN1119	RC	45	10874.98	7925	74.4	RCT	LINEAR
TARKWA	RN1120	RC	48	10875	7937.5	54.79	TEB	linear
TARKWA	RN1121	RC	48	10875	7950	75.5	RCT	LINEAR
TARKWA	RN1122	RC	47	10875	7962.49	54.95	TEB	linear
TARKWA	RN1123	RC	49	10875	7975	77.12	RCT	LINEAR
TARKWA	RN1124	RC	48	10875	7987.51	54.15	TEB	linear
TARKWA	RN1125	RC	37	10862.5	7900	53.62	TEB	linear
TARKWA	RN1126	RC	38	10862.5	7912.48	54.06	TEB	linear
TARKWA	RN1127	RC	39	10862.5	7925.02	54.14	TEB	linear
TARKWA	RN1128	RC	42	10862.5	7937.48	54.45	TEB	linear
TARKWA	RN1129	RC	41	10862.5	7950.03	54.78	TEB	linear
TARKWA	RN1130	RC	40	10862.5	7962.51	54.57	TEB	linear
TARKWA	RN1131	RC	40	10862.52	7975.03	54.2	TEB	linear
TARKWA	RN1132	RC	40	10862.5	7987.54	54.04	TEB	linear
TARKWA	RN1133	RC	34	10850	7900.01	54.07	TEB	linear
TARKWA	RN1134	RC	33	10850	7912.54	54.04	TEB	linear
TARKWA	RN1135	RC	39	10850	7925	78.49	RCT	LINEAR
TARKWA	RN1137	RC	40	10850	7949.99	78.01	RCT	LINEAR
TARKWA	RN1139	RC	42	10850	7975	77.57	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN1140	RC	36	10850	7987.5	54.16	TEB	linear
TARKWA	RN1147	RC	36	10837.18	7974.69	77.94	RCT	LINEAR
TARKWA	RN1149	RC	22	10825.02	7899.97	54.57	TEB	linear
TARKWA	RN1153	RC	23	10825	7950	54.12	TEB	linear
TARKWA	RN1155	RC	29	10837.5	7975	53.75	TEB	linear
TARKWA	RN1201A	RC	59	10899.99	7800	63.91	RCT	LINEAR
TARKWA	RN1202	RC	54	10900	7812.5	56.78	TEB	linear
TARKWA	RN1203	RC	42	10900	7825	66.26	RCT	LINEAR
TARKWA	RN1204	RC	51	10900	7837.51	54.47	TEB	linear
TARKWA	RN1205	RC	47	10900.38	7850.11	69.22	RCT	LINEAR
TARKWA	RN1206	RC	52	10899.99	7862.55	53.85	TEB	linear
TARKWA	RN1207	RC	47	10900	7874.99	68.07	RCT	LINEAR
TARKWA	RN1208	RC	54	10900	7887.53	54.27	TEB	linear
TARKWA	RN1209	RC	45	10887.5	7800.01	56.52	TEB	linear
TARKWA	RN1210	RC	47	10887.48	7812.52	56.17	TEB	linear
TARKWA	RN1211	RC	44	10887.49	7825.01	54.55	TEB	linear
TARKWA	RN1212	RC	45	10887.5	7837.5	54.25	TEB	linear
TARKWA	RN1213	RC	46	10887.49	7850	54.33	TEB	linear
TARKWA	RN1214	RC	47	10887.49	7862.5	54.24	TEB	linear
TARKWA	RN1215	RC	48	10887.51	7875	54.19	TEB	linear
TARKWA	RN1216	RC	49	10887.51	7887.51	54.41	TEB	linear
TARKWA	RN1217	RC	42	10875	7800	59	TEB	linear
TARKWA	RN1218	RC	39	10875.01	7812.49	54.84	TEB	linear
TARKWA	RN1219	RC	39	10874.97	7825.02	54.58	TEB	linear
TARKWA	RN1220	RC	40	10875.02	7837.48	54.57	TEB	linear
TARKWA	RN1221	RC	29	10874.68	7850.44	62.27	RCT	LINEAR
TARKWA	RN1222	RC	42	10875.01	7862.48	54.19	TEB	linear
TARKWA	RN1223	RC	30	10874.02	7874.64	62.33	RCT	LINEAR
TARKWA	RN1224	RC	44	10874.99	7887.52	53.98	TEB	linear
TARKWA	RN1225	RC	30	10862.49	7800.03	51.13	TEB	linear
TARKWA	RN1226	RC	31	10858.37	7812.55	51.28	TEB	linear
TARKWA	RN1227	RC	37	10866.9	7825.01	54.52	TEB	linear
TARKWA	RN1228	RC	36	10862.49	7837.51	54.45	TEB	linear
TARKWA	RN1229	RC	36	10862.5	7850	54.8	TEB	linear
TARKWA	RN1230	RC	37	10862.5	7862.5	55.13	TEB	linear
TARKWA	RN1231	RC	37	10862.52	7875.01	54.87	TEB	linear
TARKWA	RN1232	RC	37	10862.51	7887.51	54.12	TEB	linear
TARKWA	RN1233	RC	27	10850.01	7799.98	51.2	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	RN1234	RC	24	10850	7812.5	53	TEB	linear
TARKWA	RN1235	RC	25	10850.01	7825	51.3	TEB	linear
TARKWA	RN1236	RC	25	10849.99	7837.51	51.86	TEB	linear
TARKWA	RN1237	RC	28	10850	7850	51.29	TEB	linear
TARKWA	RN1238	RC	34	10854.83	7862.59	55.03	TEB	linear
TARKWA	RN1239	RC	33	10850	7875	54.82	TEB	linear
TARKWA	RN1240	RC	32	10850	7887.51	54.77	TEB	linear
TARKWA	RN1249	RC	15	10825	7800	53.33	TEB	linear
TARKWA	RN1251	RC	17	10825.01	7824.99	53.41	TEB	linear
TARKWA	RN1253	RC	17	10825.01	7849.99	53.87	TEB	linear
TARKWA	RN1255	RC	21	10825	7875	54.01	TEB	linear
TARKWA	RN1301	RC	39	10900	7700	51.34	TEB	linear
TARKWA	RN1303	RC	44	10900	7725	51.27	TEB	linear
TARKWA	RN1305	RC	52	10899.97	7750.01	58.47	TEB	linear
TARKWA	RN1308	RC	51	10899.99	7787.51	56.64	TEB	linear
TARKWA	RN1317	RC	29	10875.02	7700.01	51.31	TEB	linear
TARKWA	RN1319	RC	32	10875	7725	51.3	TEB	linear
TARKWA	RN1321	RC	34	10875	7750	51.1	TEB	linear
TARKWA	RN1324	RC	34	10875	7787.5	51	TEB	linear
TARKWA	RN1337	RC	23	10850	7750.02	53.76	TEB	linear
TARKWA	RN1340	RC	23	10849.99	7787.53	51.07	TEB	linear
TARKWA	RN1401	RC	25	10900	7600.01	44.87	TEB	linear
TARKWA	RN1403	RC	27	10900	7625	46	TEB	linear
TARKWA	RN1405	RC	31	10901.05	7644.99	45.34	TEB	linear
TARKWA	RN1407	RC	45	10900	7675.01	51.43	TEB	linear
TARKWA	RN1417	RC	14	10875	7600	46	TEB	linear
TARKWA	RN1419	RC	17	10875	7625	46	TEB	linear
TARKWA	RN1421	RC	25	10875.01	7650.02	48.67	TEB	linear
TARKWA	RN1423	RC	34	10875.01	7675.01	50.93	TEB	linear
TARKWA	RN1505	RC	21	10900	7550.01	45.32	TEB	linear
TARKWA	RN1507	RC	22	10900.01	7574.99	45.18	TEB	linear
TARKWA	RN1523	RC	11	10874.98	7575.03	45.02	TEB	linear
TARKWA	RN1601	RC	32	10899.98	7400	50.4	TEB	linear
TARKWA	RN1603	RC	34	10900.04	7425.03	49.21	TEB	linear
TARKWA	S0001	RC	67	10799.71	8999.85	74.54	TEB	linear
TARKWA	S0003	RC	66	10799.63	9024.85	74.21	TEB	linear
TARKWA	S0005	RC	66	10795.48	9048.83	74.25	TEB	linear
TARKWA	S0007	RC	66	10800	9074.99	71.97	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S0017A	RC	63	10774.99	9000	84.07	RCT	LINEAR
TARKWA	S0019	RC	40	10775	9024.99	83.83	RCT	LINEAR
TARKWA	S0020	RC	35	10775	9037.5	53.52	TEB	linear
TARKWA	S0021	RC	40	10775	9050	82.87	RCT	LINEAR
TARKWA	S0022	RC	37	10775	9062.51	53.59	TEB	linear
TARKWA	S0023	RC	43	10775	9075	82.43	RCT	LINEAR
TARKWA	S0024	RC	38	10775	9087.5	53.6	TEB	linear
TARKWA	S0033	RC	33	10748.22	9000.18	84.45	RCT	LINEAR
TARKWA	S0034	RC	24	10750	9012.5	53.68	TEB	linear
TARKWA	S0035	RC	36	10748.1	9025.12	84.77	RCT	LINEAR
TARKWA	S0036	RC	25	10750	9037.5	53.38	TEB	linear
TARKWA	S0037	RC	37	10747.9	9050.05	84.24	RCT	LINEAR
TARKWA	S0038	RC	28	10749.99	9062.48	53.64	TEB	linear
TARKWA	S0039	RC	38	10747.81	9075.02	84.33	RCT	LINEAR
TARKWA	S0040	RC	29	10750	9087.5	53.82	TEB	linear
TARKWA	S0049	RC	9	10715.32	9000.02	70.37	RCT	LINEAR
TARKWA	S0050	RC	12	10725	9012.5	53.37	TEB	linear
TARKWA	S0051	RC	9	10709.25	9024.98	70.54	RCT	LINEAR
TARKWA	S0052	RC	14	10725	9037.5	53.71	TEB	linear
TARKWA	S0053	RC	31	10725	9049.99	84.61	RCT	LINEAR
TARKWA	S0054	RC	16	10725.01	9062.52	53.83	TEB	linear
TARKWA	S0055	RC	32	10724.99	9075	84.52	RCT	LINEAR
TARKWA	S0101	RC	66	10800	9100.01	71.47	TEB	linear
TARKWA	S0103	RC	68	10800	9125	72.11	TEB	linear
TARKWA	S0105	RC	72	10800	9149.98	72.7	TEB	linear
TARKWA	S0107	RC	72	10800	9174.99	74.34	TEB	linear
TARKWA	S0117C	RC	42	10775.01	9100.01	80.41	TEB	linear
TARKWA	S0118	RC	38	10774.99	9112.48	53.77	TEB	linear
TARKWA	S0119C	RC	40	10775	9125.01	76.97	TEB	linear
TARKWA	S0120	RC	39	10775	9137.51	54.18	TEB	linear
TARKWA	S0121C	RC	41	10775	9149.97	75.94	TEB	linear
TARKWA	S0122	RC	35	10775	9162.5	53.68	TEB	linear
TARKWA	S0123C	RC	42	10775	9175.02	76.44	TEB	linear
TARKWA	S0133C	RC	43	10750.01	9100	84.49	TEB	linear
TARKWA	S0134	RC	29	10750	9112.5	54	TEB	linear
TARKWA	S0135C	RC	41	10749.99	9125.01	84.36	TEB	linear
TARKWA	S0136	RC	27	10750	9137.5	54.15	TEB	linear
TARKWA	S0137C	RC	42	10750	9150	84.03	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S0138	RC	28	10749.99	9162.49	54.01	TEB	linear
TARKWA	S0139C	RC	42	10750.4	9174.93	83.92	TEB	linear
TARKWA	S0149C	RC	33	10725	9100	84.67	TEB	linear
TARKWA	S0151C	RC	34	10724.99	9125.01	84.95	TEB	linear
TARKWA	S0152	RC	19	10725.01	9137.51	53.7	TEB	linear
TARKWA	S0153C	RC	35	10724.99	9150.01	84.84	TEB	linear
TARKWA	S0154	RC	20	10725.01	9162.51	53.73	TEB	linear
TARKWA	S0155C	RC	36	10725	9175	84.5	TEB	linear
TARKWA	S0156	RC	22	10725	9187.5	54.06	TEB	linear
TARKWA	S0203	RC	49	10799.986	9224.971	48.078	TEB	LINEAR
TARKWA	S0205	DES	50	10800	9250	48	NEW TEB CUT 4	LINEAR
TARKWA	S0217C	RC	48	10775	9199.99	80.31	TEB	linear
TARKWA	S0219	RC	37	10775.024	9225.025	48.121	TEB	LINEAR
TARKWA	S0233C	RC	43	10750.36	9199.53	83.44	TEB	linear
TARKWA	S0235	RC	28	10749.965	9224.973	48.502	TEB	LINEAR
TARKWA	S0249	RC	38	10724.98	9200.02	84.6	RCT	LINEAR
TARKWA	S0251	RC	40	10724.98	9225.01	84.28	RCT	LINEAR
TARKWA	S0299	RC	34	10775	9012.49	53.88	TEB	linear
TARKWA	S0301	RC	80	10799.98	9299.99	72.77	Teb12	linear
TARKWA	S0303	RC	77	10800	9325	69.31	Teb12	linear
TARKWA	S0305	RC	74	10800	9349.98	69.3	Teb12	linear
TARKWA	S0307	RC	77	10800	9375.02	69.09	Teb12	linear
TARKWA	S0317	RC	73	10775	9299.98	74.01	Teb12	linear
TARKWA	S0319	RC	70	10775	9324.97	70.5	Teb12	linear
TARKWA	S0321	RC	69	10775	9349.99	69.73	Teb12	linear
TARKWA	S0323	RC	70	10775	9375.01	70.35	Teb12	linear
TARKWA	S0333	RC	59	10750	9299.99	76.1	Teb12	linear
TARKWA	S0335	RC	56	10750	9324.95	73.28	Teb12	linear
TARKWA	S0337	RC	59	10750	9349.99	71.28	Teb12	linear
TARKWA	S0339	RC	58	10750	9374.93	72.32	Teb12	linear
TARKWA	S0401	RC	76	10800	9399.98	69.82	Teb12	linear
TARKWA	S0403	RC	80	10800	9425	70.12	Teb12	linear
TARKWA	S0405	RC	77	10800	9449.99	70.6	Teb12	linear
TARKWA	S0407	RC	76	10800	9475.04	71.66	Teb12	linear
TARKWA	S0417	RC	69	10775	9399.97	71.86	Teb12	linear
TARKWA	S0419	RC	74	10775	9424.95	72.61	Teb12	linear
TARKWA	S0421	RC	75	10775	9450.01	73.5	Teb12	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S0423	RC	74	10775	9474.97	74.69	Teb12	linear
TARKWA	S0433	RC	63	10750	9400.01	74.04	Teb12	linear
TARKWA	S0435	RC	63	10750	9425	75.51	Teb12	linear
TARKWA	S0437	RC	67	10750	9450.04	76.66	Teb12	linear
TARKWA	S0439	RC	70	10750	9474.94	79.53	Teb12	linear
TARKWA	S0501	RC	88	10800	9499.97	74.94	Teb12	linear
TARKWA	S0503	RC	91	10800	9524.99	81.89	Teb12	linear
TARKWA	S0505	RC	94	10800	9550.03	85.45	Teb12	linear
TARKWA	S0507	RC	98	10800.013	9575.062	88.375	NEW TEB CUT 4	LINEAR
TARKWA	S0517	RC	80	10775	9500	78.06	Teb12	linear
TARKWA	S0519	RC	82	10775	9524.97	83.2	Teb12	linear
TARKWA	S0521	RC	88	10774.99	9550	85.63	Teb12	linear
TARKWA	S0523	RC	88	10775	9575.01	85	Teb12	linear
TARKWA	S0533	RC	75	10750	9499.97	82.69	Teb12	linear
TARKWA	S0535	RC	77	10750	9525.04	83.83	Teb12	linear
TARKWA	S0537	RC	77	10750	9550	83.52	Teb12	linear
TARKWA	S0539	RC	76	10750	9575	82.86	Teb12	linear
TARKWA	S0555	RC	66	10725	9574.95	79.54	Teb12	linear
TARKWA	S0601	RC	95	10800.027	9600.02	88.02	NEW TEB CUT 4	LINEAR
TARKWA	S0603	RC	97	10806.329	9624.285	89.886	TEB	LINEAR
TARKWA	S0605	RC	92	10800.149	9648.128	85.473	TEB	LINEAR
TARKWA	S0607	RC	89	10799.999	9674.989	79.512	TEB	LINEAR
TARKWA	S0617	RC	85	10775.01	9600.04	84.03	Teb12	linear
TARKWA	S0619	RC	83	10775	9625.02	83.89	Teb12	linear
TARKWA	S0621	RC	87	10774.99	9649.99	83.96	Teb12	linear
TARKWA	S0623	RC	84	10774.944	9674.986	82.581	TEB	LINEAR
TARKWA	S0633	RC	77	10750	9600.03	83.29	Teb12	linear
TARKWA	S0635	RC	77	10750	9624.98	84.69	Teb12	linear
TARKWA	S0637	RC	78	10750.01	9650.01	83.9	Teb12	linear
TARKWA	S0639	RC	82	10749.98	9675.03	83.75	Teb12	linear
TARKWA	S0649	RC	69	10725	9600.05	83.08	Teb12	linear
TARKWA	S0651	RC	50	10724.99	9625	87.3	RCT	LINEAR
TARKWA	S0653	RC	48	10724.98	9650.01	89.13	RCT	LINEAR
TARKWA	S0655	RC	32	10725.01	9674.98	90.38	RCT	LINEAR
TARKWA	S0661	RC	22	10712.5	9649.99	88.58	RCT	LINEAR
TARKWA	S0663	RC	25	10712.49	9675	90.12	RCT	LINEAR
TARKWA	S0701	RC	88	10800.002	9699.995	76.708	TEB	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S0703	RC	88	10800.003	9724.922	76.019	TEB	LINEAR
TARKWA	S0705	RC	91	10800.002	9749.97	74.598	TEB	LINEAR
TARKWA	S0707	RC	90	10799.995	9774.999	74.443	TEB	LINEAR
TARKWA	S0717	RC	92	10774.917	9700.08	82.007	TEB	LINEAR
TARKWA	S0719	RC	87	10775	9725.04	81.86	Teb12	linear
TARKWA	S0721	RC	87	10775	9750	80.1	Teb12	linear
TARKWA	S0733	RC	80	10749.99	9700.01	83.53	Teb12	linear
TARKWA	S0735	RC	83	10750.015	9725.019	83.9	TEB	LINEAR
TARKWA	S0737	RC	39	10750	9749.98	89.73	RCT	LINEAR
TARKWA	S0739	RC	45	10750	9775	89.36	RCT	LINEAR
TARKWA	S0743	RC	35	10750	9725	90	RCT	LINEAR
TARKWA	S0749	RC	74	10725.112	9700.08	84.184	NEW TEB CUT 4	LINEAR
TARKWA	S0751	RC	36	10724.99	9725	90.73	RCT	LINEAR
TARKWA	S0753	RC	35	10725.01	9749.99	90.35	RCT	LINEAR
TARKWA	S0755	RC	43	10725	9774.98	89.76	RCT	LINEAR
TARKWA	S0757	RC	33	10712.5	9699.99	90.58	RCT	LINEAR
TARKWA	S0759	RC	36	10712.5	9724.99	90.8	RCT	LINEAR
TARKWA	S0803	RC	89	10799.97	9824.96	72.57	Teb12	linear
TARKWA	S0805	RC	56	10799.99	9850	88.39	RCT	LINEAR
TARKWA	S0817	RC	47	10774.99	9799.98	88.49	RCT	LINEAR
TARKWA	S0819	RC	43	10775.04	9824.97	89.74	RCT	LINEAR
TARKWA	S0821	RC	50	10775	9850	90.14	RCT	LINEAR
TARKWA	S0823	RC	52	10774.99	9875	90.19	RCT	LINEAR
TARKWA	S0833	RC	57	10749.99	9800	89.62	RCT	LINEAR
TARKWA	S0835	RC	56	10750.06	9824.99	89.67	RCT	LINEAR
TARKWA	S0837	RC	47	10749.99	9850	89.71	RCT	LINEAR
TARKWA	S0839	RC	46	10750	9875	89.95	RCT	LINEAR
TARKWA	S0849	RC	42	10725	9799.99	89.89	RCT	LINEAR
TARKWA	S0851	RC	40	10724.98	9825	89.83	RCT	LINEAR
TARKWA	S0853	RC	38	10725	9849.99	89.76	RCT	LINEAR
TARKWA	S0855	RC	54	10725.01	9874.99	89.8	RCT	LINEAR
TARKWA	S0901	RC	105	10799.99	9900	91.05	RCM	LINEAR
TARKWA	S0905	RC	100	10800.01	9950.01	89.98	RCM	LINEAR
TARKWA	S0907	RC	106	10799.98	9975	90.13	RCM	LINEAR
TARKWA	S0919	RC	98	10775	9925	89.85	RCM	LINEAR
TARKWA	S0921	RC	98	10775	9950	89.56	RCM	LINEAR
TARKWA	S0923	RC	93	10774.98	9975	89.85	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S0933	RC	59	10750	9900	89.93	RCT	LINEAR
TARKWA	S0935	RC	92	10749.98	9924.98	89.9	RCM	LINEAR
TARKWA	S0937	RC	66	10750	9950	89.87	RCM	LINEAR
TARKWA	S0939	RC	69	10750	9975	90.02	RCM	LINEAR
TARKWA	S0947	RC	55	10737.5	9975	110.61	RCM	LINEAR
TARKWA	S0948	RC	55	10737.51	9987.49	111.07	RCM	LINEAR
TARKWA	S0949	RC	53	10724.98	9899.99	90.09	RCT	LINEAR
TARKWA	S0951	RC	49	10724.99	9924.99	109.06	RCM	LINEAR
TARKWA	S0951T	RC	51	10724.98	9924.99	89.84	RCT	LINEAR
TARKWA	S0953	RC	55	10724.99	9949.98	111.07	RCM	LINEAR
TARKWA	S0954	RC	52	10724.99	9962.49	111.51	RCM	LINEAR
TARKWA	S0955	RC	52	10724.99	9975	113.21	RCM	LINEAR
TARKWA	S0956	RC	54	10724.98	9987.5	114.74	RCM	LINEAR
TARKWA	S0959	RC	49	10712.49	9912.49	109.31	RCM	LINEAR
TARKWA	S0960	RC	45	10712.5	9937.5	111.93	RCM	LINEAR
TARKWA	S0961	RC	48	10712.5	9950	112.78	RCM	LINEAR
TARKWA	S0962	RC	54	10712.87	9962.57	112.74	RCM	LINEAR
TARKWA	S0963	RC	64	10712.49	9975.01	115.28	RCM	LINEAR
TARKWA	S0964	RC	54	10712.49	9987.5	117.52	RCM	LINEAR
TARKWA	S1001	RC	103	10800	9999.99	90.13	RCM	LINEAR
TARKWA	S1005	RC	50	10799.99	10049.99	98.26	RCM	LINEAR
TARKWA	S1007	RC	48	10800	10075	100.24	RCM	LINEAR
TARKWA	S1017	RC	61	10774.99	10000	89.99	RCM	LINEAR
TARKWA	S1019	RC	60	10774.99	10025	105.65	RCM	LINEAR
TARKWA	S1021	RC	57	10775	10049.99	106.75	RCM	LINEAR
TARKWA	S1023	RC	45	10774.98	10074.99	104.47	RCM	LINEAR
TARKWA	S1031	RC	45	10762.48	10074.99	106.66	RCM	LINEAR
TARKWA	S1032	RC	46	10762.48	10087.49	107.68	RCM	LINEAR
TARKWA	S1033	RC	103	10749.95	9988.46	89.83	RCM	LINEAR
TARKWA	S1035	RC	50	10749.98	10025	108.56	RCM	LINEAR
TARKWA	S1037	RC	51	10749.99	10050	108.37	RCM	LINEAR
TARKWA	S1038	RC	44	10750	10062.51	107.53	RCM	LINEAR
TARKWA	S1039	RC	43	10749.99	10074.99	108.4	RCM	LINEAR
TARKWA	S1040	RC	46	10750	10087.5	109.25	RCM	LINEAR
TARKWA	S1041	RC	53	10737.48	9999.99	111.9	RCM	LINEAR
TARKWA	S1042	RC	51	10737.5	10012.5	111.41	RCM	LINEAR
TARKWA	S1043	RC	51	10737.51	10025.01	111.14	RCM	LINEAR
TARKWA	S1044	RC	50	10737.5	10037.51	110.5	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1045	RC	45	10737.5	10050.01	109.75	RCM	LINEAR
TARKWA	S1046	RC	43	10737.5	10062.5	109.26	RCM	LINEAR
TARKWA	S1047	RC	43	10737.52	10075	109.62	RCM	LINEAR
TARKWA	S1048	RC	44	10737.5	10087.5	110.33	RCM	LINEAR
TARKWA	S1049	RC	49	10725	10000	115.2	RCM	LINEAR
TARKWA	S1050	RC	55	10725.01	10012.51	114.77	RCM	LINEAR
TARKWA	S1051	RC	46	10724.99	10024.98	113.69	RCM	LINEAR
TARKWA	S1052	RC	45	10724.99	10037.49	112.88	RCM	LINEAR
TARKWA	S1053	RC	43	10725	10050	111.38	RCM	LINEAR
TARKWA	S1054	RC	42	10725	10062.51	110.45	RCM	LINEAR
TARKWA	S1055	RC	43	10725	10074.99	111.02	RCM	LINEAR
TARKWA	S1056	RC	42	10725.01	10087.49	110.84	RCM	LINEAR
TARKWA	S1057	RC	55	10712.52	9999.99	118.17	RCM	LINEAR
TARKWA	S1058	RC	58	10712.5	10012.5	117.48	RCM	LINEAR
TARKWA	S1059	RC	46	10712.49	10024.99	116.57	RCM	LINEAR
TARKWA	S1060	RC	45	10712.48	10037.47	115.5	RCM	LINEAR
TARKWA	S1061	RC	42	10712.49	10049.99	113.23	RCM	LINEAR
TARKWA	S1062	RC	43	10712.5	10062.5	112.02	RCM	LINEAR
TARKWA	S1063	RC	41	10712.5	10075.01	111.79	RCM	LINEAR
TARKWA	S1064	RC	41	10712.5	10087.49	112.34	RCM	LINEAR
TARKWA	S1101	RC	47	10800	10099.99	102.3	RCM	LINEAR
TARKWA	S1103	RC	48	10800	10125	103.21	RCM	LINEAR
TARKWA	S1105	RC	47	10800	10149.99	103.66	RCM	LINEAR
TARKWA	S1107	RC	35	10800	10175	103.89	RCM	LINEAR
TARKWA	S1117	RC	46	10775	10099.99	106.21	RCM	LINEAR
TARKWA	S1119	RC	48	10775.01	10124.98	107.97	RCM	LINEAR
TARKWA	S1121	RC	46	10774.99	10150	107.95	RCM	LINEAR
TARKWA	S1123	RC	47	10775	10175	108.29	RCM	LINEAR
TARKWA	S1125	RC	45	10762.49	10099.99	108.48	RCM	LINEAR
TARKWA	S1126	RC	46	10762.49	10112.5	109.22	RCM	LINEAR
TARKWA	S1127	RC	46	10762.49	10125	109.7	RCM	LINEAR
TARKWA	S1128	RC	45	10762.5	10137.5	109.86	RCM	LINEAR
TARKWA	S1132	RC	43	10761.75	10187.74	111.25	RCM	LINEAR
TARKWA	S1133	RC	43	10750	10100	110.12	RCM	LINEAR
TARKWA	S1134	RC	45	10750	10112.49	110.48	RCM	LINEAR
TARKWA	S1135	RC	46	10749.99	10124.99	111	RCM	LINEAR
TARKWA	S1136	RC	45	10750.01	10137.51	111.23	RCM	LINEAR
TARKWA	S1137	RC	43	10749.99	10149.99	111.03	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1138	RC	44	10750	10162.5	110.87	RCM	LINEAR
TARKWA	S1139	RC	43	10750	10174.99	111.04	RCM	LINEAR
TARKWA	S1140	RC	43	10749.98	10187.5	111.81	RCM	LINEAR
TARKWA	S1141	RC	43	10737.5	10100	111.29	RCM	LINEAR
TARKWA	S1142	RC	45	10737.5	10112.5	111.95	RCM	LINEAR
TARKWA	S1143	RC	45	10737.49	10124.99	112.74	RCM	LINEAR
TARKWA	S1144	RC	44	10737.5	10137.5	112.8	RCM	LINEAR
TARKWA	S1145	RC	43	10737.49	10150	112.31	RCM	LINEAR
TARKWA	S1146	RC	43	10737.49	10162.49	112.14	RCM	LINEAR
TARKWA	S1147	RC	42	10737.5	10174.99	112.49	RCM	LINEAR
TARKWA	S1148	RC	42	10737.49	10187.5	112.15	RCM	LINEAR
TARKWA	S1149	RC	43	10724.99	10100	112.45	RCM	LINEAR
TARKWA	S1150	RC	43	10724.99	10112.49	113.06	RCM	LINEAR
TARKWA	S1151	RC	42	10725	10125	113.52	RCM	LINEAR
TARKWA	S1152	RC	42	10724.99	10137.5	113.78	RCM	LINEAR
TARKWA	S1153	RC	43	10725	10150	113.52	RCM	LINEAR
TARKWA	S1154	RC	41	10724.99	10162.5	112.95	RCM	LINEAR
TARKWA	S1155	RC	40	10725	10174.99	113.28	RCM	LINEAR
TARKWA	S1156	RC	40	10724.99	10187.5	113.15	RCM	LINEAR
TARKWA	S1157	RC	43	10712.5	10100.02	113.63	RCM	LINEAR
TARKWA	S1158	RC	41	10712.5	10112.5	114.66	RCM	LINEAR
TARKWA	S1159	RC	41	10712.49	10124.97	115.22	RCM	LINEAR
TARKWA	S1160	RC	41	10712.5	10137.5	115.05	RCM	LINEAR
TARKWA	S1161	RC	40	10712.49	10149.99	114.41	RCM	LINEAR
TARKWA	S1162	RC	40	10712.49	10162.48	113.9	RCM	LINEAR
TARKWA	S1163	RC	39	10712.5	10174.98	113.44	RCM	LINEAR
TARKWA	S1164	RC	40	10712.49	10187.5	113.98	RCM	LINEAR
TARKWA	S1201	RC	32	10800	10200	104.32	RCM	LINEAR
TARKWA	S1203	RC	36	10800	10225	104.48	RCM	LINEAR
TARKWA	S1205	RC	49	10799.99	10249.99	107.64	RCM	LINEAR
TARKWA	S1206	RC	50	10799.99	10262.49	108.74	RCM	LINEAR
TARKWA	S1207	RC	52	10799.99	10274.98	110.16	RCM	LINEAR
TARKWA	S1208	RC	53	10799.99	10287.48	110.42	RCM	LINEAR
TARKWA	S1209	RC	48	10787.5	10200	106.91	RCM	LINEAR
TARKWA	S1211	RC	50	10787.5	10225	107.46	RCM	LINEAR
TARKWA	S1213	RC	49	10787.49	10249.97	109.49	RCM	LINEAR
TARKWA	S1214	RC	49	10787.5	10262.52	110.3	RCM	LINEAR
TARKWA	S1215	RC	49	10787.5	10275	111.81	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1216	RC	51	10787.5	10287.51	111.75	RCM	LINEAR
TARKWA	S1217	RC	46	10775	10199.99	108.52	RCM	LINEAR
TARKWA	S1219	RC	46	10775	10225	109.65	RCM	LINEAR
TARKWA	S1221	RC	47	10775	10249.99	111.29	RCM	LINEAR
TARKWA	S1222	RC	48	10775	10262.48	111.63	RCM	LINEAR
TARKWA	S1223	RC	48	10774.99	10274.99	113.14	RCM	LINEAR
TARKWA	S1224	RC	51	10775	10287.5	113.4	RCM	LINEAR
TARKWA	S1229	RC	45	10762.49	10250.02	112.92	RCM	LINEAR
TARKWA	S1230	RC	46	10762.5	10262.47	113.38	RCM	LINEAR
TARKWA	S1232	RC	50	10762.5	10287.5	115.29	RCM	LINEAR
TARKWA	S1233	RC	43	10750	10200	110.93	RCM	LINEAR
TARKWA	S1234	RC	43	10750	10212.5	111.36	RCM	LINEAR
TARKWA	S1235	RC	43	10750	10224.98	112.48	RCM	LINEAR
TARKWA	S1236	RC	44	10749.99	10237.5	113.01	RCM	LINEAR
TARKWA	S1237	RC	45	10749.99	10250.01	114.07	RCM	LINEAR
TARKWA	S1238	RC	45	10749.99	10262.5	114.92	RCM	LINEAR
TARKWA	S1239	RC	48	10749.99	10275	116.74	RCM	LINEAR
TARKWA	S1240	RC	45	10750	10287.49	117.26	RCM	LINEAR
TARKWA	S1241	RC	41	10737.5	10199.99	111.91	RCM	LINEAR
TARKWA	S1242	RC	43	10737.51	10212.49	112.62	RCM	LINEAR
TARKWA	S1243	RC	43	10737.49	10224.99	113.29	RCM	LINEAR
TARKWA	S1244	RC	43	10737.48	10237.52	113.94	RCM	LINEAR
TARKWA	S1245	RC	43	10737.49	10249.99	115.32	RCM	LINEAR
TARKWA	S1246	RC	45	10737.49	10262.51	116.25	RCM	LINEAR
TARKWA	S1247	RC	43	10737.49	10275	117.35	RCM	LINEAR
TARKWA	S1248	RC	43	10737.49	10287.51	118.08	RCM	LINEAR
TARKWA	S1249	RC	41	10725	10200	113.26	RCM	LINEAR
TARKWA	S1250	RC	43	10725	10212.49	113.7	RCM	LINEAR
TARKWA	S1251	RC	40	10724.99	10224.99	114.15	RCM	LINEAR
TARKWA	S1252	RC	41	10724.99	10237.49	114.92	RCM	LINEAR
TARKWA	S1253	RC	43	10725.01	10249.99	116.14	RCM	LINEAR
TARKWA	S1254	RC	43	10724.99	10262.49	117.91	RCM	LINEAR
TARKWA	S1255	RC	43	10725	10275	119.06	RCM	LINEAR
TARKWA	S1256	RC	43	10725.01	10287.48	120.1	RCM	LINEAR
TARKWA	S1258	RC	39	10712.5	10212.49	113.94	RCM	LINEAR
TARKWA	S1259	RC	37	10712.49	10225	114.15	RCM	LINEAR
TARKWA	S1260	RC	40	10712.5	10237.49	115.06	RCM	LINEAR
TARKWA	S1261	RC	41	10712.49	10250	116.32	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1262	RC	42	10712.5	10262.49	118.37	RCM	LINEAR
TARKWA	S1263	RC	42	10712.52	10274.99	120.13	RCM	LINEAR
TARKWA	S1264	RC	42	10712.47	10287.5	121.97	RCM	LINEAR
TARKWA	S1301	RC	53	10800	10300.02	110.47	RCM	LINEAR
TARKWA	S1302	RC	51	10800	10312.48	110.78	RCM	LINEAR
TARKWA	S1303	RC	52	10799.99	10325	110.74	RCM	LINEAR
TARKWA	S1304	RC	51	10800	10337.49	109.6	RCM	LINEAR
TARKWA	S1305	RC	50	10800	10349.99	109.14	RCM	LINEAR
TARKWA	S1306	RC	50	10800	10362.49	109.63	RCM	LINEAR
TARKWA	S1307	RC	48	10799.99	10375	108.63	RCM	LINEAR
TARKWA	S1308	RC	45	10799.98	10387.51	106.45	RCM	LINEAR
TARKWA	S1309	RC	52	10787.5	10300	112.07	RCM	LINEAR
TARKWA	S1310	RC	51	10787.5	10312.5	112.37	RCM	LINEAR
TARKWA	S1311	RC	50	10787.48	10324.98	112.04	RCM	LINEAR
TARKWA	S1313	RC	48	10787.5	10349.99	111.65	RCM	LINEAR
TARKWA	S1314	RC	45	10787.5	10362.5	111.54	RCM	LINEAR
TARKWA	S1315	RC	48	10787.49	10375	111.03	RCM	LINEAR
TARKWA	S1316	RC	45	10787.49	10387.49	108.51	RCM	LINEAR
TARKWA	S1317	RC	51	10775	10300.01	114.19	RCM	LINEAR
TARKWA	S1318	RC	51	10775	10312.48	114.67	RCM	LINEAR
TARKWA	S1321	RC	46	10775	10350.01	113.38	RCM	LINEAR
TARKWA	S1322	RC	46	10775	10362.51	114.09	RCM	LINEAR
TARKWA	S1323	RC	45	10775	10375	112.41	RCM	LINEAR
TARKWA	S1324	RC	43	10775	10387.49	109.62	RCM	LINEAR
TARKWA	S1325	RC	50	10762.5	10300	116.36	RCM	LINEAR
TARKWA	S1326	RC	49	10762.49	10312.49	116.79	RCM	LINEAR
TARKWA	S1328	RC	48	10762.48	10337.5	117.38	RCM	LINEAR
TARKWA	S1329	RC	47	10762.49	10349.99	116.27	RCM	LINEAR
TARKWA	S1330	RC	42	10762.51	10362.5	115.07	RCM	LINEAR
TARKWA	S1331	RC	43	10762.49	10374.99	113.94	RCM	LINEAR
TARKWA	S1332	RC	39	10762.52	10387.49	109.55	RCM	LINEAR
TARKWA	S1333	RC	46	10750	10300	117.5	RCM	LINEAR
TARKWA	S1334	RC	46	10750	10312.49	118.08	RCM	LINEAR
TARKWA	S1335	RC	48	10749.99	10324.83	118.09	RCM	LINEAR
TARKWA	S1336	RC	46	10749.99	10337.5	117.95	RCM	LINEAR
TARKWA	S1337	RC	46	10750	10350	117.91	RCM	LINEAR
TARKWA	S1338	RC	43	10750.01	10362.5	118.33	RCM	LINEAR
TARKWA	S1339	RC	39	10749.98	10374.99	114.44	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1340	RC	36	10750.01	10387.49	111.34	RCM	LINEAR
TARKWA	S1344	RC	46	10737.5	10337.5	121.14	RCM	LINEAR
TARKWA	S1345	RC	46	10737.52	10350	121.92	RCM	LINEAR
TARKWA	S1346	RC	43	10737.5	10362.5	120.11	RCM	LINEAR
TARKWA	S1347	RC	38	10737.48	10374.99	115.42	RCM	LINEAR
TARKWA	S1348	RC	35	10737.49	10387.5	111.61	RCM	LINEAR
TARKWA	S1350	RC	45	10724.99	10312.5	122.02	RCM	LINEAR
TARKWA	S1351	RC	46	10724.97	10325.02	123.44	RCM	LINEAR
TARKWA	S1352	RC	44	10725.01	10337.49	123.12	RCM	LINEAR
TARKWA	S1353	RC	44	10724.99	10349.99	123.61	RCM	LINEAR
TARKWA	S1354	RC	45	10725	10362.5	121.74	RCM	LINEAR
TARKWA	S1355	RC	37	10724.99	10374.99	117.27	RCM	LINEAR
TARKWA	S1356	RC	34	10725.01	10387.49	113.38	RCM	LINEAR
TARKWA	S1357	RC	45	10712.49	10299.99	123.69	RCM	LINEAR
TARKWA	S1358	RC	46	10712.5	10312.5	124.23	RCM	LINEAR
TARKWA	S1359	RC	45	10712.41	10324.89	125.33	RCM	LINEAR
TARKWA	S1360	RC	44	10712.49	10337.49	126.05	RCM	LINEAR
TARKWA	S1361	RC	44	10712.5	10350	125.4	RCM	LINEAR
TARKWA	S1362	RC	42	10712.51	10362.5	123.53	RCM	LINEAR
TARKWA	S1363	RC	37	10712.51	10375	119.29	RCM	LINEAR
TARKWA	S1364	RC	33	10712.5	10387.49	114.91	RCM	LINEAR
TARKWA	S1402	RC	42	10800.01	10412.51	101.37	RCM	LINEAR
TARKWA	S1403	RC	43	10799.99	10424.99	101.83	RCM	LINEAR
TARKWA	S1404	RC	44	10800	10437.5	103.31	RCM	LINEAR
TARKWA	S1405	RC	47	10799.99	10449.99	104.13	RCM	LINEAR
TARKWA	S1406	RC	47	10799.98	10462.49	105.63	RCM	LINEAR
TARKWA	S1407	RC	49	10799.99	10474.99	107.52	RCM	LINEAR
TARKWA	S1408	RC	51	10799.99	10487.49	109.41	RCM	LINEAR
TARKWA	S1409	RC	42	10787.49	10399.99	104.93	RCM	LINEAR
TARKWA	S1410	RC	40	10787.5	10412.5	102.62	RCM	LINEAR
TARKWA	S1411	RC	41	10787.51	10425.01	102.72	RCM	LINEAR
TARKWA	S1412	RC	42	10787.5	10437.5	104.31	RCM	LINEAR
TARKWA	S1414	RC	44	10787.5	10462.5	106.46	RCM	LINEAR
TARKWA	S1415	RC	45	10787.5	10475	107.67	RCM	LINEAR
TARKWA	S1416	RC	48	10787.5	10487.5	109.98	RCM	LINEAR
TARKWA	S1417	RC	41	10774.99	10400	105.93	RCM	LINEAR
TARKWA	S1418	RC	37	10774.99	10412.49	104.14	RCM	LINEAR
TARKWA	S1419	RC	37	10774.99	10424.99	103.91	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1420	RC	39	10774.99	10437.5	104.44	RCM	LINEAR
TARKWA	S1421	RC	35	10774.99	10449.99	104.94	RCM	LINEAR
TARKWA	S1422	RC	40	10775	10462.5	106.4	RCM	LINEAR
TARKWA	S1423	RC	40	10775	10474.99	106.76	RCM	LINEAR
TARKWA	S1424	RC	44	10774.98	10487.49	109.72	RCM	LINEAR
TARKWA	S1425	RC	35	10762.5	10399.99	106.71	RCM	LINEAR
TARKWA	S1426	RC	35	10762.49	10412.5	105.3	RCM	LINEAR
TARKWA	S1427	RC	34	10762.5	10425	104.9	RCM	LINEAR
TARKWA	S1429	RC	34	10762.49	10449.99	105.48	RCM	LINEAR
TARKWA	S1430	RC	35	10762.49	10462.49	106.08	RCM	LINEAR
TARKWA	S1431	RC	39	10762.5	10475	107.25	RCM	LINEAR
TARKWA	S1432	RC	39	10762.48	10487.49	109.45	RCM	LINEAR
TARKWA	S1433	RC	34	10749.98	10400.01	108.17	RCM	LINEAR
TARKWA	S1434	RC	34	10749.99	10412.5	106.99	RCM	LINEAR
TARKWA	S1435	RC	31	10750.01	10424.99	106.58	RCM	LINEAR
TARKWA	S1436	RC	32	10749.99	10437.49	106.29	RCM	LINEAR
TARKWA	S1437	RC	32	10750	10450	106.5	RCM	LINEAR
TARKWA	S1438	RC	33	10749.99	10462.49	107.05	RCM	LINEAR
TARKWA	S1439	RC	34	10750	10475	108.19	RCM	LINEAR
TARKWA	S1440	RC	36	10749.99	10487.49	109.78	RCM	LINEAR
TARKWA	S1441	RC	33	10737.5	10399.99	109.17	RCM	LINEAR
TARKWA	S1442	RC	35	10737.5	10412.49	109.03	RCM	LINEAR
TARKWA	S1443	RC	30	10737.49	10425	108.28	RCM	LINEAR
TARKWA	S1444	RC	31	10737.5	10437.5	107.93	RCM	LINEAR
TARKWA	S1445	RC	31	10737.5	10450	108.19	RCM	LINEAR
TARKWA	S1446	RC	32	10737.49	10462.49	108.51	RCM	LINEAR
TARKWA	S1447	RC	32	10737.49	10474.99	109.12	RCM	LINEAR
TARKWA	S1448	RC	31	10737.49	10487.49	110.66	RCM	LINEAR
TARKWA	S1449	RC	31	10724.99	10400	111.02	RCM	LINEAR
TARKWA	S1450	RC	31	10724.94	10412.53	110.7	RCM	LINEAR
TARKWA	S1451	RC	30	10724.99	10425.08	110.4	RCM	LINEAR
TARKWA	S1452	RC	30	10724.93	10437.38	109.95	RCM	LINEAR
TARKWA	S1453	RC	30	10724.97	10450.02	109.95	RCM	LINEAR
TARKWA	S1454	RC	29	10725	10462.5	109.84	RCM	LINEAR
TARKWA	S1455	RC	29	10725	10475.01	110.2	RCM	LINEAR
TARKWA	S1456	RC	34	10724.99	10487.49	112.76	RCM	LINEAR
TARKWA	S1457	RC	30	10712.49	10400	113.39	RCM	LINEAR
TARKWA	S1458	RC	29	10712.62	10412.53	112.69	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1459	RC	28	10712.67	10424.86	112.17	RCM	LINEAR
TARKWA	S1460	RC	28	10712.5	10437.49	111.72	RCM	LINEAR
TARKWA	S1461	RC	28	10712.48	10450.01	111.66	RCM	LINEAR
TARKWA	S1462	RC	27	10712.48	10462.51	111.26	RCM	LINEAR
TARKWA	S1463	RC	29	10712.28	10474.81	111.95	RCM	LINEAR
TARKWA	S1464	RC	30	10712.5	10487.49	112.85	RCM	LINEAR
TARKWA	S1501	RC	53	10800	10500	112.22	RCM	LINEAR
TARKWA	S1502	RC	55	10799.98	10512.48	115.63	RCM	LINEAR
TARKWA	S1503	RC	58	10800	10525	118.68	RCM	LINEAR
TARKWA	S1504	RC	58	10800	10537.49	119.89	RCM	LINEAR
TARKWA	S1505	RC	58	10800	10549.99	120.36	RCM	LINEAR
TARKWA	S1506	RC	51	10800	10562.49	120.56	RCM	LINEAR
TARKWA	S1507	RC	51	10800	10574.99	120.38	RCM	LINEAR
TARKWA	S1508	RC	49	10800	10587.49	119.86	RCM	LINEAR
TARKWA	S1509	RC	52	10787.49	10500	112.93	RCM	LINEAR
TARKWA	S1510	RC	53	10787.5	10512.5	116.77	RCM	LINEAR
TARKWA	S1511	RC	58	10787.52	10525.02	119.76	RCM	LINEAR
TARKWA	S1512	RC	58	10787.5	10537.5	121.3	RCM	LINEAR
TARKWA	S1513	RC	57	10787.5	10550	121.8	RCM	LINEAR
TARKWA	S1514	RC	57	10787.5	10562.5	121.8	RCM	LINEAR
TARKWA	S1515	RC	50	10787.5	10575.01	121.31	RCM	LINEAR
TARKWA	S1516	RC	45	10787.49	10587.49	120.97	RCM	LINEAR
TARKWA	S1517	RC	49	10775	10500	113.55	RCM	LINEAR
TARKWA	S1518	RC	50	10774.99	10512.49	117.79	RCM	LINEAR
TARKWA	S1519	RC	56	10775.03	10525.05	120.29	RCM	LINEAR
TARKWA	S1520	RC	40	10775	10537.51	122.76	RCM	LINEAR
TARKWA	S1521	RC	49	10774.99	10550.03	122.72	RCM	LINEAR
TARKWA	S1522	RC	56	10775	10562.5	122.64	RCM	LINEAR
TARKWA	S1523	RC	67	10775	10575	122.09	RCM	LINEAR
TARKWA	S1524	RC	45	10774.99	10587.49	121.51	RCM	LINEAR
TARKWA	S1525	RC	44	10762.49	10499.99	114.14	RCM	LINEAR
TARKWA	S1526	RC	48	10762.5	10512.51	118.39	RCM	LINEAR
TARKWA	S1527	RC	52	10762.52	10525.04	121.15	RCM	LINEAR
TARKWA	S1528	RC	50	10762.5	10537.5	123.34	RCM	LINEAR
TARKWA	S1529	RC	48	10762.49	10550.04	123.31	RCM	LINEAR
TARKWA	S1530	RC	49	10762.5	10562.5	123.31	RCM	LINEAR
TARKWA	S1531	RC	51	10762.49	10575	123.18	RCM	LINEAR
TARKWA	S1532	RC	43	10762.45	10587.48	121.82	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1533	RC	41	10750	10500	113.74	RCM	LINEAR
TARKWA	S1534	RC	45	10750	10512.5	118.53	RCM	LINEAR
TARKWA	S1535	RC	49	10750	10525.01	121.9	RCM	LINEAR
TARKWA	S1536	RC	48	10750.01	10537.44	123.82	RCM	LINEAR
TARKWA	S1537	RC	45	10750	10549.97	124	RCM	LINEAR
TARKWA	S1538	RC	45	10750	10562.49	123.94	RCM	LINEAR
TARKWA	S1539	RC	49	10750.01	10575	123.79	RCM	LINEAR
TARKWA	S1541	RC	36	10737.5	10500	113.75	RCM	LINEAR
TARKWA	S1542	RC	39	10737.5	10512.5	117.48	RCM	LINEAR
TARKWA	S1543	RC	43	10737.5	10525	121.48	RCM	LINEAR
TARKWA	S1544	RC	46	10737.5	10537.49	124.03	RCM	LINEAR
TARKWA	S1545	RC	46	10737.49	10550.02	124.63	RCM	LINEAR
TARKWA	S1546	RC	46	10737.48	10562.53	124.37	RCM	LINEAR
TARKWA	S1547	RC	45	10737.5	10574.99	123.32	RCM	LINEAR
TARKWA	S1548	RC	48	10737.5	10587.5	123.27	RCM	LINEAR
TARKWA	S1549	RC	34	10725	10500.01	114.6	RCM	LINEAR
TARKWA	S1550	RC	37	10725	10512.51	117.43	RCM	LINEAR
TARKWA	S1551	RC	38	10724.99	10524.98	120.83	RCM	LINEAR
TARKWA	S1552	RC	45	10725.01	10537.46	124.17	RCM	LINEAR
TARKWA	S1553	RC	44	10724.99	10550.01	125.27	RCM	LINEAR
TARKWA	S1554	RC	44	10724.98	10562.53	125.4	RCM	LINEAR
TARKWA	S1555	RC	43	10724.97	10574.98	123.72	RCM	LINEAR
TARKWA	S1556	RC	42	10725	10587.49	123.82	RCM	LINEAR
TARKWA	S1557	RC	34	10712.5	10499.99	115.81	RCM	LINEAR
TARKWA	S1558	RC	35	10712.49	10512.51	118.04	RCM	LINEAR
TARKWA	S1559	RC	37	10712.49	10525.01	121.4	RCM	LINEAR
TARKWA	S1560	RC	40	10712.5	10537.48	124.21	RCM	LINEAR
TARKWA	S1561	RC	43	10712.47	10550.06	125.6	RCM	LINEAR
TARKWA	S1562	RC	43	10712.5	10562.47	126.63	RCM	LINEAR
TARKWA	S1563	RC	43	10712.5	10574.97	126.37	RCM	LINEAR
TARKWA	S1564	RC	43	10712.5	10587.54	125.7	RCM	LINEAR
TARKWA	S1601	RC	47	10800	10600	119.3	RCM	LINEAR
TARKWA	S1602	RC	49	10799.99	10612.51	119.25	RCM	LINEAR
TARKWA	S1603	RC	49	10799.99	10625.01	118.7	RCM	LINEAR
TARKWA	S1604	RC	36	10800	10637.49	117.01	RCM	LINEAR
TARKWA	S1605	RC	43	10800	10649.99	115.88	RCM	LINEAR
TARKWA	S1609	RC	46	10787.5	10600.01	119.94	RCM	LINEAR
TARKWA	S1610	RC	46	10787.49	10612.49	119.45	RCM	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	S1611	RC	44	10787.5	10625.01	118.24	RCM	LINEAR
TARKWA	S1612	RC	43	10787.5	10637.49	118.06	RCM	LINEAR
TARKWA	S1617	RC	43	10775	10599.99	119.91	RCM	LINEAR
TARKWA	S1618	RC	45	10774.99	10612.49	119.19	RCM	LINEAR
TARKWA	S1619	RC	40	10775	10625	117.85	RCM	LINEAR
TARKWA	S1620	RC	40	10774.99	10637.48	116.98	RCM	LINEAR
TARKWA	S1625	RC	42	10762.5	10600	119.65	RCM	LINEAR
TARKWA	S1626	RC	39	10762.5	10612.5	118.64	RCM	LINEAR
TARKWA	S1627	RC	37	10762.5	10625	116.86	RCM	LINEAR
TARKWA	S1628	RC	16	10762.5	10637.5	115.41	RCM	LINEAR
TARKWA	S1633	RC	37	10750	10600	120.25	RCM	LINEAR
TARKWA	S1634	RC	36	10750	10612.49	118.67	RCM	LINEAR
TARKWA	S1635	RC	31	10749.99	10625	115.4	RCM	LINEAR
TARKWA	S1636	RC	31	10750	10637.49	113.81	RCM	LINEAR
TARKWA	S1641	RC	35	10737.49	10599.99	121.13	RCM	LINEAR
TARKWA	S1642	RC	34	10737.49	10612.5	119.1	RCM	LINEAR
TARKWA	S1643	RC	27	10737.5	10624.99	115.61	RCM	LINEAR
TARKWA	S1644	RC	25	10737.49	10637.5	111.79	RCM	LINEAR
TARKWA	S1649	RC	33	10725.01	10600	122.27	RCM	LINEAR
TARKWA	S1650	RC	31	10725	10612.5	119.66	RCM	LINEAR
TARKWA	S1651	RC	25	10724.99	10625	116.05	RCM	LINEAR
TARKWA	S1652	RC	23	10725.01	10637.49	111.98	RCM	LINEAR
TARKWA	S1657	RC	31	10712.51	10600	122.71	RCM	LINEAR
TARKWA	S1658	RC	29	10712.49	10612.5	119.68	RCM	LINEAR
TARKWA	S1659	RC	21	10712.5	10624.99	115.61	RCM	LINEAR
TARKWA	S1707	RC	31	10800	10774.99	99.03	RCM	LINEAR
TARKWA	S1723	RC	26	10775	10775	99.34	RCM	LINEAR
TARKWA	S1737	RC	21	10750	10749.99	100.35	RCM	LINEAR
TARKWA	S1739	RC	20	10750	10775	100.25	RCM	LINEAR
TARKWA	S1753	RC	16	10724.99	10750	100.27	RCM	LINEAR
TARKWA	S1755	RC	22	10724.99	10774.99	100.76	RCM	LINEAR
TARKWA	S1801	RC	32	10800.01	10800	99.28	RCM	LINEAR
TARKWA	S1817	RC	33	10775	10800	100.03	RCM	LINEAR
TARKWA	S1849	RC	38	10724.99	10800	95.62	RCM	LINEAR
TARKWA	SN0034	RC	15	10750	8712.48	53.29	TEB	linear
TARKWA	SN0101A	RC	70	10800	8900	83.05	RCT	LINEAR
TARKWA	SN0102	RC	39	10800	8912.47	53.98	TEB	linear
TARKWA	SN0103	RC	48	10799.99	8925	83.23	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0104	RC	40	10800	8937.5	53.93	TEB	linear
TARKWA	SN0105	RC	51	10800	8949.99	82.76	RCT	LINEAR
TARKWA	SN0106	RC	41	10800	8962.48	54.04	TEB	linear
TARKWA	SN0107	RC	47	10800	8975	80.72	RCT	LINEAR
TARKWA	SN0108	RC	42	10800	8987.49	53.79	TEB	linear
TARKWA	SN0117	RC	43	10775	8899.99	86.32	RCT	LINEAR
TARKWA	SN0118	RC	29	10775.03	8912.51	54.18	TEB	linear
TARKWA	SN0119	RC	43	10775	8925	84.78	RCT	LINEAR
TARKWA	SN0120	RC	29	10775	8937.49	53.77	TEB	linear
TARKWA	SN0121	RC	43	10774.99	8950	84.32	RCT	LINEAR
TARKWA	SN0122	RC	29	10775	8962.51	53.85	TEB	linear
TARKWA	SN0123	RC	43	10774.99	8975	84.08	RCT	LINEAR
TARKWA	SN0124	RC	32	10775	8987.52	53.77	TEB	linear
TARKWA	SN0133	RC	11	10740.21	8899.98	70.27	RCT	LINEAR
TARKWA	SN0134	RC	20	10750	8912.5	53.98	TEB	linear
TARKWA	SN0135	RC	29	10748.7	8925.2	84.18	RCT	LINEAR
TARKWA	SN0136	RC	21	10750	8937.5	53.58	TEB	linear
TARKWA	SN0137	RC	32	10748.52	8950.13	84.34	RCT	LINEAR
TARKWA	SN0138	RC	21	10750	8962.49	53.9	TEB	linear
TARKWA	SN0139	RC	32	10748.38	8975.24	84.26	RCT	LINEAR
TARKWA	SN0140	RC	22	10750	8987.5	54.01	TEB	linear
TARKWA	SN0149A	RC	27	10725	8899.96	70.5	RCT	LINEAR
TARKWA	SN0151	RC	8	10725	8924.96	71.05	RCT	LINEAR
TARKWA	SN0153	RC	8	10725	8950.01	71.08	RCT	LINEAR
TARKWA	SN0155	RC	8	10721.58	8975.04	70.45	RCT	LINEAR
TARKWA	SN0156	RC	14	10725	8987.51	53.22	TEB	linear
TARKWA	SN0157	RC	11	10712.48	8399.97	76.71	TEB	linear
TARKWA	SN0201	RC	45	10800	8800.02	80.48	TEB	linear
TARKWA	SN0202	RC	40	10799.99	8812.49	54.31	TEB	linear
TARKWA	SN0203	RC	46	10800	8825	81.16	RCT	LINEAR
TARKWA	SN0204	RC	41	10800	8837.48	54.17	TEB	linear
TARKWA	SN0205	RC	49	10800.99	8849.99	82.34	RCT	LINEAR
TARKWA	SN0206	RC	42	10800	8862.51	54.47	TEB	linear
TARKWA	SN0207	RC	49	10799.99	8875	82.74	RCT	LINEAR
TARKWA	SN0208	RC	39	10800	8887.52	54.37	TEB	linear
TARKWA	SN0217	RC	45	10783.73	8800	85.02	RCT	LINEAR
TARKWA	SN0218	RC	26	10775	8812.51	54.18	TEB	linear
TARKWA	SN0219	RC	41	10775	8825	84.6	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0220	RC	30	10775	8837.54	54.17	TEB	linear
TARKWA	SN0221	RC	39	10774.99	8849.99	84.23	RCT	LINEAR
TARKWA	SN0222	RC	30	10775	8862.51	54.72	TEB	linear
TARKWA	SN0223	RC	42	10775	8875	85.43	RCT	LINEAR
TARKWA	SN0224	RC	30	10775	8887.48	54.3	TEB	linear
TARKWA	SN0233	RC	15	10749.99	8799.98	70.43	RCT	LINEAR
TARKWA	SN0234	RC	16	10750	8812.49	53.63	TEB	linear
TARKWA	SN0235	RC	15	10750	8825.01	70.46	RCT	LINEAR
TARKWA	SN0236	RC	18	10750.01	8837.52	54.23	TEB	linear
TARKWA	SN0237	RC	16	10750	8849.98	70.44	RCT	LINEAR
TARKWA	SN0238	RC	20	10750.01	8862.54	54.54	TEB	linear
TARKWA	SN0239	RC	14	10747.9	8875	70.24	RCT	LINEAR
TARKWA	SN0240	RC	21	10750	8887.49	54.56	TEB	linear
TARKWA	SN0301	RC	42	10800	8700	78.57	TEB	linear
TARKWA	SN0302	RC	35	10800	8712.48	54.86	TEB	linear
TARKWA	SN0303	RC	43	10800	8725	79.54	TEB	linear
TARKWA	SN0304	RC	35	10800	8737.49	55.02	TEB	linear
TARKWA	SN0305	RC	44	10800	8749.99	79.7	TEB	linear
TARKWA	SN0306	RC	36	10800	8762.52	54.29	TEB	linear
TARKWA	SN0307	RC	45	10800	8774.99	79.88	TEB	linear
TARKWA	SN0308	RC	36	10800	8787.5	54.2	TEB	linear
TARKWA	SN0317	RC	30	10775	8700.02	76.95	RCT	LINEAR
TARKWA	SN0318	RC	25	10775	8712.51	54.6	TEB	linear
TARKWA	SN0319	RC	30	10774.72	8721.95	77.18	RCT	LINEAR
TARKWA	SN0320	RC	15	10775	8737.5	54.51	TEB	linear
TARKWA	SN0321	RC	41	10781.63	8750.36	84.29	RCT	LINEAR
TARKWA	SN0322	RC	25	10775	8762.52	54.13	TEB	linear
TARKWA	SN0323	RC	44	10785.11	8775.02	84.96	RCT	LINEAR
TARKWA	SN0324	RC	26	10775	8787.49	54.14	TEB	linear
TARKWA	SN0333	RC	13	10750.17	8699.82	70.91	RCT	LINEAR
TARKWA	SN0335	RC	14	10750.45	8724.75	70.97	RCT	LINEAR
TARKWA	SN0336	RC	14	10750	8737.49	53.34	TEB	linear
TARKWA	SN0337	RC	15	10750	8750.02	70.11	RCT	LINEAR
TARKWA	SN0338	RC	15	10750	8762.52	53.64	TEB	linear
TARKWA	SN0339	RC	15	10750	8775.01	70.48	RCT	LINEAR
TARKWA	SN0340	RC	16	10750	8787.5	53.69	TEB	linear
TARKWA	SN0349	RC	21	10724.59	8700.06	70.99	TEB	linear
TARKWA	SN0351	RC	22	10723.92	8724.26	71	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0353	RC	23	10724.92	8750.66	70.97	TEB	linear
TARKWA	SN0401A	RC	54	10799.99	8600.01	77.18	RCT	LINEAR
TARKWA	SN0402	RC	31	10799.99	8612.49	53.99	TEB	linear
TARKWA	SN0403	RC	38	10800	8624.98	77.53	RCT	LINEAR
TARKWA	SN0404	RC	30	10799.98	8637.49	53.89	TEB	linear
TARKWA	SN0405	RC	39	10800	8650	77.16	RCT	LINEAR
TARKWA	SN0406	RC	33	10800	8662.52	54.16	TEB	linear
TARKWA	SN0407	RC	41	10800.02	8675	77.9	TEB	linear
TARKWA	SN0408	RC	34	10800	8687.48	54.41	TEB	linear
TARKWA	SN0417	RC	17	10770.18	8600.01	70.99	RCT	LINEAR
TARKWA	SN0418	RC	19	10774.98	8612.49	54	TEB	linear
TARKWA	SN0419	RC	31	10783.1	8625.16	77.15	RCT	LINEAR
TARKWA	SN0421	RC	30	10780.21	8650.01	77.37	RCT	LINEAR
TARKWA	SN0422	RC	23	10774.99	8662.52	54.24	TEB	linear
TARKWA	SN0423	RC	30	10775.54	8675.08	77.19	RCT	LINEAR
TARKWA	SN0424	RC	25	10774.99	8687.49	54.03	TEB	linear
TARKWA	SN0433	RC	9	10749.98	8600	70.8	RCT	LINEAR
TARKWA	SN0434	RC	12	10749.99	8612.47	53.96	TEB	linear
TARKWA	SN0435	RC	9	10749.95	8625.05	71.13	RCT	LINEAR
TARKWA	SN0437	RC	11	10749.82	8649.93	70.85	RCT	LINEAR
TARKWA	SN0439	RC	11	10750.03	8674.8	70.85	RCT	LINEAR
TARKWA	SN0440	RC	14	10750	8687.5	53.68	TEB	linear
TARKWA	SN0449A	RC	18	10730.59	8600.03	70.7	RCT	LINEAR
TARKWA	SN0451	RC	21	10729.04	8625.67	71.05	TEB	linear
TARKWA	SN0453	RC	22	10728.76	8650.99	71.05	TEB	linear
TARKWA	SN0455	RC	22	10725.58	8673.85	71.18	TEB	linear
TARKWA	SN0501	RC	51	10800	8500.01	77.59	RCT	LINEAR
TARKWA	SN0502	RC	31	10800.03	8512.49	53.82	TEB	linear
TARKWA	SN0503	RC	33	10800	8525	77.03	RCT	LINEAR
TARKWA	SN0504	RC	31	10800.03	8537.51	53.95	TEB	linear
TARKWA	SN0505	RC	35	10800	8550.01	77.23	RCT	LINEAR
TARKWA	SN0506	RC	30	10800.02	8562.51	54.03	TEB	linear
TARKWA	SN0507	RC	36	10800	8574.99	77.12	RCT	LINEAR
TARKWA	SN0508	RC	35	10799.98	8587.49	53.96	TEB	linear
TARKWA	SN0517	RC	15	10771.12	8500.26	70.82	RCT	LINEAR
TARKWA	SN0518	RC	18	10775.03	8512.48	53.87	TEB	linear
TARKWA	SN0519	RC	18	10775	8524.99	72.96	RCT	LINEAR
TARKWA	SN0520	RC	19	10775.02	8537.48	53.95	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0521	RC	18	10775	8550	71.21	RCT	LINEAR
TARKWA	SN0522	RC	22	10775.01	8562.48	54	TEB	linear
TARKWA	SN0523	RC	18	10772.84	8575.07	71.07	RCT	LINEAR
TARKWA	SN0524	RC	19	10775.01	8587.48	53.96	TEB	linear
TARKWA	SN0533	RC	7	10749.99	8500.03	70.97	RCT	LINEAR
TARKWA	SN0534	RC	7	10750.03	8512.47	53.89	TEB	linear
TARKWA	SN0535	RC	7	10749.99	8525.04	70.9	RCT	LINEAR
TARKWA	SN0536	RC	10	10750.02	8537.47	53.99	TEB	linear
TARKWA	SN0537	RC	7	10749.99	8550.02	70.46	RCT	LINEAR
TARKWA	SN0538	RC	7	10750.01	8562.47	54.04	TEB	linear
TARKWA	SN0539	RC	8	10749.96	8575.09	70.74	RCT	LINEAR
TARKWA	SN0540	RC	10	10750.01	8587.47	53.91	TEB	linear
TARKWA	SN0549	RC	19	10738.48	8500.01	70.75	RCT	LINEAR
TARKWA	SN0551	RC	20	10737.88	8524.7	71.09	TEB	linear
TARKWA	SN0553	RC	20	10735.89	8549.59	71.14	TEB	linear
TARKWA	SN0555	RC	21	10734.13	8576.58	71.17	TEB	linear
TARKWA	SN0601A	RC	48	10799.99	8400	77.61	RCT	LINEAR
TARKWA	SN0602	RC	24	10800	8412.51	53.93	TEB	linear
TARKWA	SN0603	RC	30	10800	8424.99	77.7	RCT	LINEAR
TARKWA	SN0604	RC	27	10800	8437.49	53.82	TEB	linear
TARKWA	SN0605	RC	31	10800	8449.96	77.27	RCT	LINEAR
TARKWA	SN0606	RC	26	10800	8462.48	54.03	TEB	linear
TARKWA	SN0607	RC	32	10800	8474.99	77.52	RCT	LINEAR
TARKWA	SN0608	RC	26	10800	8487.51	53.71	TEB	linear
TARKWA	SN0617	RC	12	10774.99	8399.99	71.27	RCT	LINEAR
TARKWA	SN0619	RC	12	10775	8424.99	71.04	RCT	LINEAR
TARKWA	SN0621	RC	15	10775	8449.99	70.99	RCT	LINEAR
TARKWA	SN0623	RC	15	10774.99	8474.99	70.96	RCT	LINEAR
TARKWA	SN0624	RC	17	10775	8487.51	53.95	TEB	linear
TARKWA	SN0633	RC	22	10750	8400	71.23	TEB	linear
TARKWA	SN0635	RC	21	10750.32	8424.82	71.34	TEB	linear
TARKWA	SN0637	RC	21	10750.25	8450.02	71.25	TEB	linear
TARKWA	SN0639	RC	22	10750.21	8475.07	71.31	TEB	linear
TARKWA	SN0651	RC	20	10724.99	8424.99	82.5	TEB	linear
TARKWA	SN0663	RC	20	10712.5	8475.01	84.43	TEB	linear
TARKWA	SN0701A	RC	48	10804.21	8300.55	77.89	RCT	LINEAR
TARKWA	SN0702	RC	21	10800	8312.52	53.54	TEB	linear
TARKWA	SN0703	RC	32	10808.24	8325.49	77.63	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0704	RC	22	10800.01	8337.46	53.74	TEB	linear
TARKWA	SN0705	RC	30	10805.33	8350.35	77.46	RCT	LINEAR
TARKWA	SN0706	RC	23	10799.99	8362.5	53.56	TEB	linear
TARKWA	SN0707	RC	31	10804.63	8375.04	77.51	RCT	LINEAR
TARKWA	SN0708	RC	25	10800	8387.49	53.83	TEB	linear
TARKWA	SN0717	RC	10	10775	8299.99	71.07	RCT	LINEAR
TARKWA	SN0719	RC	10	10775	8325	71.21	RCT	LINEAR
TARKWA	SN0721	RC	11	10775	8350	71.22	RCT	LINEAR
TARKWA	SN0723	RC	11	10774.99	8374.99	71.25	RCT	LINEAR
TARKWA	SN0731	RC	25	10762.5	8375	71.28	TEB	linear
TARKWA	SN0733	RC	19	10750.01	8299.99	72.31	TEB	linear
TARKWA	SN0735	RC	20	10749.99	8325.01	71.83	TEB	linear
TARKWA	SN0737	RC	21	10749.99	8350	72.11	TEB	linear
TARKWA	SN0738	RC	43	10850.01	8362.49	53.98	TEB	linear
TARKWA	SN0749	RC	8	10725	8300.01	72.1	TEB	linear
TARKWA	SN0751	RC	9	10725	8325	71.79	TEB	linear
TARKWA	SN0753	RC	12	10724.98	8350.01	72.28	TEB	linear
TARKWA	SN0755	RC	11	10725	8375	73.67	TEB	linear
TARKWA	SN0801	RC	18	10800	8200	71.23	RCT	LINEAR
TARKWA	SN0803	RC	30	10811.39	8224.76	77.57	RCT	LINEAR
TARKWA	SN0805	RC	29	10807.43	8250.85	77.28	RCT	LINEAR
TARKWA	SN0807	RC	30	10800	8275	78.02	RCT	LINEAR
TARKWA	SN0808	RC	24	10800	8287.5	53.75	TEB	linear
TARKWA	SN0817	RC	7	10775	8200	71.23	RCT	LINEAR
TARKWA	SN0819	RC	8	10774.99	8225	71.19	RCT	LINEAR
TARKWA	SN0821	RC	7	10775	8249.99	71.18	RCT	LINEAR
TARKWA	SN0823	RC	9	10775	8275	70.95	RCT	LINEAR
TARKWA	SN0827	RC	22	10762.5	8225.01	70.87	TEB	linear
TARKWA	SN0829	RC	23	10762.5	8250	71.13	TEB	linear
TARKWA	SN0851	RC	8	10725	8224.99	71.31	TEB	linear
TARKWA	SN0853	RC	6	10725	8250.01	71.48	TEB	linear
TARKWA	SN0855	RC	8	10724.99	8275.02	71.74	TEB	linear
TARKWA	SN0901	RC	15	10799.99	8100	70.69	RCT	LINEAR
TARKWA	SN0902	RC	21	10800.01	8112.5	53.91	TEB	linear
TARKWA	SN0903	RC	16	10799.99	8125	71.01	RCT	LINEAR
TARKWA	SN0905	RC	16	10800	8150	71.2	RCT	LINEAR
TARKWA	SN0907	RC	16	10800	8175	71.2	RCT	LINEAR
TARKWA	SN0919	RC	5	10775	8124.99	71.61	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	SN0921	RC	6	10775	8150	71.31	RCT	LINEAR
TARKWA	SN0923	RC	5	10775	8175	71.08	RCT	LINEAR
TARKWA	SN1001	RC	14	10800	8000	54.16	TEB	linear
TARKWA	SN1003	RC	16	10800	8025.01	54.38	TEB	linear
TARKWA	SN1005A	RC	18	10800.01	8049.99	53.44	TEB	linear
TARKWA	SN1007A	RC	22	10800.01	8075	54.12	TEB	linear
TARKWA	SN1033A	RC	16	10749.99	8000	77.63	RCT	LINEAR
TARKWA	SN1035A	RC	18	10750	8024.99	78.82	RCT	LINEAR
TARKWA	SN1037A	RC	17	10749.99	8050.01	78.29	RCT	LINEAR
TARKWA	SN1049A	RC	5	10724.99	8000	78.1	RCT	LINEAR
TARKWA	SN1051A	RC	6	10725	8024.99	78.23	RCT	LINEAR
TARKWA	SN1053A	RC	6	10724.99	8049.99	78.35	RCT	LINEAR
TARKWA	SN1105	RC	15	10799.99	7950.01	53.72	TEB	linear
TARKWA	SN1107	RC	24	10800.01	7974.99	53.77	TEB	linear
TARKWA	SN1133A	RC	13	10749.97	7899.99	78.41	RCT	LINEAR
TARKWA	SN1135A	RC	14	10749.99	7924.99	78.21	RCT	LINEAR
TARKWA	SN1137A	RC	15	10750	7950	78.44	RCT	LINEAR
TARKWA	SN1139A	RC	16	10749.99	7975	77.93	RCT	LINEAR
TARKWA	SN1153A	RC	3	10725	7950	78.16	RCT	LINEAR
TARKWA	SN1155A	RC	4	10724.98	7975	78.31	RCT	LINEAR
TARKWA	SN1217A	RC	18	10774.99	7800	77.95	RCT	LINEAR
TARKWA	SN1219A	RC	19	10775	7825	78.08	RCT	LINEAR
TARKWA	SN1233A	RC	6	10749.99	7799.99	77.98	RCT	LINEAR
TARKWA	SN1235A	RC	8	10750	7825	77.99	RCT	LINEAR
TARKWA	SN1237A	RC	10	10749.99	7849.99	78.1	RCT	LINEAR
TARKWA	SN1239A	RC	11	10749.99	7874.99	78.46	RCT	LINEAR
TARKWA	SN1319A	RC	11	10775	7725	78.3	RCT	LINEAR
TARKWA	SN1321A	RC	14	10775	7750	78.41	RCT	LINEAR
TARKWA	SN1323A	RC	16	10774.99	7775	78.12	RCT	LINEAR
TARKWA	SN1337A	RC	4	10749.99	7749.99	78.47	RCT	LINEAR
TARKWA	SN1339A	RC	5	10750	7774.99	78.39	RCT	LINEAR
TARKWA	T0001A	RC	24	10700	8999.96	70.57	RCT	LINEAR
TARKWA	T0003	RC	6	10700.01	9024.96	70.48	RCT	LINEAR
TARKWA	T0005	RC	11	10699.99	9050	71.28	RCT	LINEAR
TARKWA	T0007	RC	11	10693.8	9075.01	70.85	RCT	LINEAR
TARKWA	T0009	RC	20	10672.77	8998.06	77.65	TEB	linear
TARKWA	T0021	RC	19	10675	9050	70.48	TEB	linear
TARKWA	T0023	RC	20	10675.01	9074.99	70.66	TEB	linear

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	T0033	RC	20	10650.01	8999.97	84.57	TEB	linear
TARKWA	T0035	RC	20	10647.16	9024.45	85.08	TEB	linear
TARKWA	T0037	RC	20	10650	9050	82.09	TEB	linear
TARKWA	T0039	RC	22	10650	9075	77.9	TEB	linear
TARKWA	T0049A	RC	10	10625.01	9000.05	84.12	RCT	LINEAR
TARKWA	T0051A	RC	12	10625.14	9025	84.38	RCT	LINEAR
TARKWA	T0053A	RC	14	10625.01	9049.92	83.88	RCT	LINEAR
TARKWA	T0055A	RC	17	10625.02	9074.91	84.8	RCT	LINEAR
TARKWA	T0101A	RC	23	10700	9100	71	RCT	LINEAR
TARKWA	T0103	RC	8	10700	9125	71	RCT	LINEAR
TARKWA	T0105	RC	45	10700.01	9150	84.82	TEB	linear
TARKWA	T0107	RC	29	10700	9174.99	85.04	RCT	LINEAR
TARKWA	T0117	RC	22	10675.11	9100.15	70.66	TEB	linear
TARKWA	T0119	RC	24	10674.99	9125.18	70.74	TEB	linear
TARKWA	T0121	RC	27	10673.89	9149.22	71.39	TEB	linear
TARKWA	T0123	RC	10	10667.3	9173.72	73.34	RCT	LINEAR
TARKWA	T0135	RC	18	10649.33	9129.49	71.27	TEB	linear
TARKWA	T0137	RC	20	10650.59	9149.72	71.86	TEB	linear
TARKWA	T0139	RC	22	10650.71	9174.95	72.11	TEB	linear
TARKWA	T0147	RC	21	10638.92	9178.99	72.47	TEB	linear
TARKWA	T0149A	RC	18	10625.02	9099.99	85.05	RCT	LINEAR
TARKWA	T0151A	RC	19	10624.95	9125	84.7	RCT	LINEAR
TARKWA	T0161	RC	20	10612.49	9150.04	85.73	TEB	linear
TARKWA	T0201	RC	29	10699.99	9199.99	84.78	RCT	LINEAR
TARKWA	T0203	RC	32	10699.97	9224.97	84.36	RCT	LINEAR
TARKWA	T0205	RC	35	10699.99	9250.02	83.88	RCT	LINEAR
TARKWA	T0207	RC	37	10699.99	9275	83.1	RCT	LINEAR
TARKWA	T0217	RC	29	10680.24	9202.72	85.25	RCT	LINEAR
TARKWA	T0219	RC	29	10674.99	9225.01	84.77	RCT	LINEAR
TARKWA	T0221	RC	29	10675	9250.01	84.02	RCT	LINEAR
TARKWA	T0223	RC	32	10674.99	9274.99	83.73	RCT	LINEAR
TARKWA	T0233	RC	14	10649.99	9200.01	76.88	RCT	LINEAR
TARKWA	T0235	RC	15	10649.98	9224.99	77.32	RCT	LINEAR
TARKWA	T0237	RC	15	10649.99	9250	78.13	RCT	LINEAR
TARKWA	T0239	RC	16	10647.47	9274.62	77.73	RCT	LINEAR
TARKWA	T0249	RC	21	10625	9200.01	77.55	RCT	LINEAR
TARKWA	T0251	RC	23	10624.99	9225	77.39	RCT	LINEAR
TARKWA	T0253	RC	25	10624.99	9249.99	77.18	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	T0255	RC	8	10624.99	9275.01	77.33	RCT	LINEAR
TARKWA	T0261	RC	19	10612.51	9249.99	77.02	RCT	LINEAR
TARKWA	T0301	RC	38	10699.99	9300.01	82.4	RCT	LINEAR
TARKWA	T0317	RC	33	10674.99	9300	83.47	RCT	LINEAR
TARKWA	T0319	RC	32	10674.99	9325	83.23	RCT	LINEAR
TARKWA	T0321	RC	33	10674.99	9350.01	82.28	RCT	LINEAR
TARKWA	T0323	RC	33	10674.99	9375	81.24	RCT	LINEAR
TARKWA	T0333	RC	27	10659.17	9302.81	83.54	RCT	LINEAR
TARKWA	T0335	RC	27	10656.05	9326.87	83.64	RCT	LINEAR
TARKWA	T0337	RC	26	10649.99	9349.99	83.28	RCT	LINEAR
TARKWA	T0339	RC	28	10649.99	9375	81.24	RCT	LINEAR
TARKWA	T0349	RC	9	10624.99	9300	77.47	RCT	LINEAR
TARKWA	T0351	RC	11	10625	9325	77.45	RCT	LINEAR
TARKWA	T0353	RC	12	10624.99	9349.99	77.41	RCT	LINEAR
TARKWA	T0355	RC	14	10624.99	9374.99	77.49	RCT	LINEAR
TARKWA	T0413	RC	40	10690.02	9457.47	77.89	RCT	LINEAR
TARKWA	T0415	RC	36	10691.05	9483.77	76.51	RCT	LINEAR
TARKWA	T0417	RC	33	10674.99	9399.99	80.08	RCT	LINEAR
TARKWA	T0419	RC	48	10674.99	9425	78.71	RCT	LINEAR
TARKWA	T0423	RC	48	10675	9475	78.44	RCT	LINEAR
TARKWA	T0433	RC	42	10650	9399.99	79.13	RCT	LINEAR
TARKWA	T0435	RC	39	10649.99	9425	77.91	RCT	LINEAR
TARKWA	T0437	RC	43	10649.99	9449.97	77.14	RCT	LINEAR
TARKWA	T0439	RC	44	10649.99	9475.01	77.55	RCT	LINEAR
TARKWA	T0449	RC	32	10625	9399.97	77.69	RCT	LINEAR
TARKWA	T0451	RC	35	10627.7	9427.64	78.15	RCT	LINEAR
TARKWA	T0453	RC	35	10624.99	9449.99	77.65	RCT	LINEAR
TARKWA	T0455	RC	37	10624.99	9474.99	78.42	RCT	LINEAR
TARKWA	T0505	RC	46	10700	9549.98	78.54	RCT	LINEAR
TARKWA	T0517	RC	51	10675	9499.96	77.53	RCT	LINEAR
TARKWA	T0521	RC	41	10674.99	9550	79.86	RCT	LINEAR
TARKWA	T0523	RC	48	10675	9574.99	80.56	RCT	LINEAR
TARKWA	T0533	RC	45	10649.97	9499.99	78.49	RCT	LINEAR
TARKWA	T0535	RC	47	10649.95	9524.96	78.9	RCT	LINEAR
TARKWA	T0537	RC	47	10650	9549.98	77.75	RCT	LINEAR
TARKWA	T0539	RC	34	10647.08	9573.8	78.02	RCT	LINEAR
TARKWA	T0549	RC	44	10624.99	9500.11	78.07	RCT	LINEAR
TARKWA	T0551	RC	41	10625	9524.99	78.03	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	T0553	RC	43	10625	9549.99	77.85	RCT	LINEAR
TARKWA	T0555	RC	30	10624.99	9574.98	77.59	RCT	LINEAR
TARKWA	T0561	RC	38	10612.49	9550	77.88	RCT	LINEAR
TARKWA	T0563	RC	41	10612.49	9574.98	77.84	RCT	LINEAR
TARKWA	T0601	RC	62	10699.99	9600.01	83.53	RCT	LINEAR
TARKWA	T0603	RC	57	10704.31	9615.5	85.31	RCT	LINEAR
TARKWA	T0617	RC	23	10674.99	9600.01	77.64	RCT	LINEAR
TARKWA	T0617A	RC	40	10671.99	9600.01	77.64	RCT	LINEAR
TARKWA	T0619	RC	41	10675	9624.99	77.94	RCT	LINEAR
TARKWA	T0621	RC	43	10674.99	9650	77.68	RCT	LINEAR
TARKWA	T0623	RC	40	10674.99	9674.98	77.42	RCT	LINEAR
TARKWA	T0633	RC	42	10649.99	9600.01	77.53	RCT	LINEAR
TARKWA	T0635	RC	49	10649.99	9625	77.85	RCT	LINEAR
TARKWA	T0637	RC	35	10649.99	9650	78.15	RCT	LINEAR
TARKWA	T0639	RC	41	10649.99	9675.01	77.7	RCT	LINEAR
TARKWA	T0643	RC	47	10637.49	9625.01	77.74	RCT	LINEAR
TARKWA	T0649	RC	47	10624.99	9600.02	77.53	RCT	LINEAR
TARKWA	T0651	RC	35	10625	9624.99	77.49	RCT	LINEAR
TARKWA	T0653	RC	35	10625	9650	77.64	RCT	LINEAR
TARKWA	T0655	RC	31	10624.99	9674.99	77.69	RCT	LINEAR
TARKWA	T0657	RC	52	10612.5	9599.98	77.75	RCT	LINEAR
TARKWA	T0659	RC	44	10612.49	9624.99	77.72	RCT	LINEAR
TARKWA	T0705	RC	39	10700.01	9749.98	90.88	RCT	LINEAR
TARKWA	T0707	RC	36	10700	9774.99	90.3	RCT	LINEAR
TARKWA	T0717	RC	38	10675	9699.99	77.6	RCT	LINEAR
TARKWA	T0719	RC	15	10675	9724.98	77.79	RCT	LINEAR
TARKWA	T0721	RC	14	10675	9749.99	78.56	RCT	LINEAR
TARKWA	T0733	RC	41	10649.99	9699.99	78	RCT	LINEAR
TARKWA	T0735	RC	33	10650.01	9724.95	77.93	RCT	LINEAR
TARKWA	T0737	RC	28	10649.99	9750	77.71	RCT	LINEAR
TARKWA	T0749	RC	23	10624.99	9700	77.75	RCT	LINEAR
TARKWA	T0751	RC	23	10625	9724.97	77.61	RCT	LINEAR
TARKWA	T0753	RC	22	10624.99	9750.03	77.51	RCT	LINEAR
TARKWA	T0801	RC	33	10700.02	9799.99	90.37	RCT	LINEAR
TARKWA	T0803	RC	34	10699.99	9825	90.14	RCT	LINEAR
TARKWA	T0805	RC	48	10700	9849.99	90.26	RCT	LINEAR
TARKWA	T0807	RC	47	10699.99	9875	89.83	RCT	LINEAR
TARKWA	T0817	RC	28	10674.97	9800.01	91.81	RCT	LINEAR

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	T0819	RC	30	10671.15	9821.29	93.16	RCT	LINEAR
TARKWA	T0823	RC	40	10675	9874.99	90.06	RCT	LINEAR
TARKWA	T0835	RC	26	10651.7	9824.65	92.99	RCT	LINEAR
TARKWA	T0837	RC	42	10651.94	9850.66	95.02	RCT	LINEAR
TARKWA	T0839	RC	45	10643.46	9868.86	96.57	RCT	LINEAR
TARKWA	T0849	RC	18	10624	9798.09	91.15	RCT	LINEAR
TARKWA	T0853	RC	42	10625.68	9846.26	99.96	RCT	LINEAR
TARKWA	T0901	RC	47	10699.99	9900	90.19	RCT	LINEAR
TARKWA	T0903	RC	49	10699.99	9925.01	110.12	RCM	LINEAR
TARKWA	T0903T	RC	45	10700.02	9925.01	90.24	RCT	LINEAR
TARKWA	T0904	RC	42	10700	9937.49	113.15	RCM	LINEAR
TARKWA	T0905	RC	46	10700	9950	115.05	RCM	LINEAR
TARKWA	T0905T	RC	45	10700	9950	90.23	RCT	LINEAR
TARKWA	T0906	RC	55	10700.13	9962.1	114.86	RCM	LINEAR
TARKWA	T0907	RC	62	10699.99	9975.01	117.18	RCM	LINEAR
TARKWA	T0908	RC	56	10699.99	9987.5	119.97	RCM	LINEAR
TARKWA	T0911	RC	52	10687.49	9925.01	109.47	RCM	LINEAR
TARKWA	T0912	RC	48	10687.5	9937.49	114.04	RCM	LINEAR
TARKWA	T0913	RC	45	10687.49	9949.99	116.44	RCM	LINEAR
TARKWA	T0914	RC	55	10687.5	9962.5	117.29	RCM	LINEAR
TARKWA	T0915	RC	51	10687.5	9975.04	119.36	RCM	LINEAR
TARKWA	T0916	RC	54	10687.5	9987.5	121.59	RCM	LINEAR
TARKWA	T0917	RC	41	10674.97	9899.99	90.3	RCT	LINEAR
TARKWA	T0919	RC	50	10675	9925	109.79	RCM	LINEAR
TARKWA	T0919T	RC	38	10674.99	9924.99	90.38	RCT	LINEAR
TARKWA	T0921	RC	45	10675	9950.01	117.49	RCM	LINEAR
TARKWA	T0921T	RC	31	10675	9950	90.3	RCT	LINEAR
TARKWA	T0922	RC	58	10674.99	9962.49	118.97	RCM	LINEAR
TARKWA	T0923	RC	49	10674.99	9974.98	121.03	RCM	LINEAR
TARKWA	T0923T	RC	33	10675	9975	90.4	RCT	LINEAR
TARKWA	T0924	RC	52	10675	9987.5	123.19	RCM	LINEAR
TARKWA	T0929	RC	46	10662.49	9950	118.22	RCM	LINEAR
TARKWA	T0930	RC	58	10662.5	9962.49	120.24	RCM	LINEAR

Domain	Sample_ID	Hole_ID	Depth_from	Depth_to	Au_ppm
TARKWA	DEP10/38	DEP10	37	38	0.01
TARKWA	DEP10/39	DEP10	38	39	0.04
TARKWA	DEP10/40	DEP10	39	40	0.1

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		DEP10/41	DEP10	40	41		0.03	
TARKWA		DEP10/42	DEP10	41	42		0.03	
TARKWA		DEP10/43	DEP10	42	43		0.01	
TARKWA		DEP10/44	DEP10	43	44		0.04	
TARKWA		DEP10/45	DEP10	44	45		3.04	
TARKWA		DEP10/46	DEP10	45	46		0.4	
TARKWA		DEP10/47	DEP10	46	47		0.98	
TARKWA		DEP10/48	DEP10	47	48		0.81	
TARKWA		DEP10/49	DEP10	48	49		0.29	
TARKWA		DEP10/50	DEP10	49	50		0.49	
TARKWA		DEP10/51	DEP10	50	51		0.74	
TARKWA		DEP10/52	DEP10	51	52		0.51	
TARKWA		DEP10/53	DEP10	52	53		0.29	
TARKWA		DEP10/54	DEP10	53	54		1.98	
TARKWA		DEP10/55	DEP10	54	55		1.09	
TARKWA		DEP10/56	DEP10	55	56		0.24	
TARKWA		DEP10/57	DEP10	56	57		1.6	
TARKWA		DEP10/58	DEP10	57	58		1.01	
TARKWA		DEP10/59	DEP10	58	59		1.34	
TARKWA		DEP10/60	DEP10	59	60		1.79	
TARKWA		DEP10/61	DEP10	60	61		3.69	
TARKWA		DEP10/62	DEP10	61	62		4.55	
TARKWA		DEP10/63	DEP10	62	63		3.1	
TARKWA		DEP10/64	DEP10	63	64		8.96	
TARKWA		DEP10/65	DEP10	64	65		0.79	
TARKWA		DEP10/66	DEP10	65	66		0.22	
TARKWA		DEP10/67	DEP10	66	67		0.05	
TARKWA		DEP10/68	DEP10	67	68		0.04	
TARKWA		DEP10/69	DEP10	68	69		0.09	
TARKWA		DEP10/70	DEP10	69	70		0.08	
TARKWA		DEP10/71	DEP10	70	71		0.18	
TARKWA		DEP10/72	DEP10	71	72		0.06	
TARKWA		DEP10/73	DEP10	72	73		0.02	
TARKWA		DEP10/74	DEP10	73	74		1.5	
TARKWA		DEP10/75	DEP10	74	75		0.39	
TARKWA		DEP10/76	DEP10	75	76		1.59	
TARKWA		DEP10/77	DEP10	76	77		0.57	
TARKWA		DEP10/78	DEP10	77	78		0.14	
TARKWA		DEP10/79	DEP10	78	79		0.43	
TARKWA		DEP10/80	DEP10	79	80		1.96	
TARKWA		DEP10/81	DEP10	80	81		1.56	
TARKWA		DEP10/82	DEP10	81	82		0.38	
TARKWA		DEP10/83	DEP10	82	83		0.06	
TARKWA		DEP10/84	DEP10	83	84		0.03	
TARKWA		DEP12/44	DEP12	43	44		0.06	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP12/45	DEP12	44	45	0.06			
TARKWA	DEP12/46	DEP12	45	46	0.02			
TARKWA	DEP12/47	DEP12	46	47	0.05			
TARKWA	DEP12/48	DEP12	47	48	0.05			
TARKWA	DEP12/49	DEP12	48	49	3.33			
TARKWA	DEP12/50	DEP12	49	50	1.65			
TARKWA	DEP12/51	DEP12	50	51	3.29			
TARKWA	DEP12/52	DEP12	51	52	0.64			
TARKWA	DEP12/53	DEP12	52	53	0.19			
TARKWA	DEP12/54	DEP12	53	54	0.97			
TARKWA	DEP12/55	DEP12	54	55	1.02			
TARKWA	DEP12/56	DEP12	55	56	0.95			
TARKWA	DEP12/57	DEP12	56	57	0.35			
TARKWA	DEP12/58	DEP12	57	58	0.91			
TARKWA	DEP12/59	DEP12	58	59	0.4			
TARKWA	DEP12/60	DEP12	59	60	0.37			
TARKWA	DEP12/61	DEP12	60	61	0.07			
TARKWA	DEP12/62	DEP12	61	62	2.15			
TARKWA	DEP12/63	DEP12	62	63	1.29			
TARKWA	DEP12/64	DEP12	63	64	2.34			
TARKWA	DEP12/65	DEP12	64	65	1.51			
TARKWA	DEP12/66	DEP12	65	66	0.6			
TARKWA	DEP12/67	DEP12	66	67	1.51			
TARKWA	DEP12/68	DEP12	67	68	1.36			
TARKWA	DEP12/69	DEP12	68	69	0.15			
TARKWA	DEP12/70	DEP12	69	70	0.02			
TARKWA	DEP12/71	DEP12	70	71	0.04			
TARKWA	DEP12/72	DEP12	71	72	0.02			
TARKWA	DEP12/73	DEP12	72	73	0.21			
TARKWA	DEP12/74	DEP12	73	74	0.19			
TARKWA	DEP12/75	DEP12	74	75	0.02			
TARKWA	DEP12/76	DEP12	75	76	0.02			
TARKWA	DEP12/77	DEP12	76	77	1.03			
TARKWA	DEP12/78	DEP12	77	78	0.45			
TARKWA	DEP12/79	DEP12	78	79	0.95			
TARKWA	DEP12/80	DEP12	79	80	0.59			
TARKWA	DEP12/81	DEP12	80	81	0.3			
TARKWA	DEP12/82	DEP12	81	82	0.79			
TARKWA	DEP12/83	DEP12	82	83	1.26			
TARKWA	DEP12/84	DEP12	83	84	0.87			
TARKWA	DEP12/85	DEP12	84	85	0.42			
TARKWA	DEP12/86	DEP12	85	86	0.02			
TARKWA	DEP12/87	DEP12	86	87	0.02			
TARKWA	DEP12/88	DEP12	87	88	0.07			
TARKWA	DEP14/40	DEP14	39	40	0.01			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		DEP14/41	DEP14	40	41		0.05	
TARKWA		DEP14/42	DEP14	41	42		0.01	
TARKWA		DEP14/43	DEP14	42	43		0.09	
TARKWA		DEP14/44	DEP14	43	44		1.83	
TARKWA		DEP14/45	DEP14	44	45		0.67	
TARKWA		DEP14/46	DEP14	45	46		0.79	
TARKWA		DEP14/47	DEP14	46	47		0.41	
TARKWA		DEP14/48	DEP14	47	48		0.13	
TARKWA		DEP14/49	DEP14	48	49		0.18	
TARKWA		DEP14/50	DEP14	49	50		0.97	
TARKWA		DEP14/51	DEP14	50	51		0.19	
TARKWA		DEP14/52	DEP14	51	52		0.2	
TARKWA		DEP14/53	DEP14	52	53		0.99	
TARKWA		DEP14/54	DEP14	53	54		0.98	
TARKWA		DEP14/55	DEP14	54	55		0.09	
TARKWA		DEP14/56	DEP14	55	56		2.19	
TARKWA		DEP14/57	DEP14	56	57		0.98	
TARKWA		DEP14/58	DEP14	57	58		3.34	
TARKWA		DEP14/59	DEP14	58	59		1.65	
TARKWA		DEP14/60	DEP14	59	60		0.42	
TARKWA		DEP14/61	DEP14	60	61		3.31	
TARKWA		DEP14/62	DEP14	61	62		1.83	
TARKWA		DEP14/63	DEP14	62	63		4.51	
TARKWA		DEP14/64	DEP14	63	64		0.36	
TARKWA		DEP14/65	DEP14	64	65		0.07	
TARKWA		DEP14/66	DEP14	65	66		0.06	
TARKWA		DEP14/67	DEP14	66	67		0.07	
TARKWA		DEP14/68	DEP14	67	68		0.17	
TARKWA		DEP14/69	DEP14	68	69		0.1	
TARKWA		DEP14/70	DEP14	69	70		0.1	
TARKWA		DEP14/71	DEP14	70	71		0.03	
TARKWA		DEP14/72	DEP14	71	72		0.02	
TARKWA		DEP14/73	DEP14	72	73		0.61	
TARKWA		DEP14/74	DEP14	73	74		0.37	
TARKWA		DEP14/75	DEP14	74	75		0.57	
TARKWA		DEP14/76	DEP14	75	76		0.68	
TARKWA		DEP14/77	DEP14	76	77		0.39	
TARKWA		DEP14/78	DEP14	77	78		0.97	
TARKWA		DEP14/79	DEP14	78	79		1.25	
TARKWA		DEP14/80	DEP14	79	80		0.63	
TARKWA		DEP14/81	DEP14	80	81		0.91	
TARKWA		DEP14/82	DEP14	81	82		0.1	
TARKWA		DEP14/83	DEP14	82	83		0.05	
TARKWA		DEP16/35	DEP16	34	35		2.08	
TARKWA		DEP16/36	DEP16	35	36		0.1	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP16/37	DEP16	DEP16	36	37	0.35		
TARKWA	DEP16/38	DEP16	DEP16	37	38	0.4		
TARKWA	DEP16/39	DEP16	DEP16	38	39	0.3		
TARKWA	DEP16/40	DEP16	DEP16	39	40	0.37		
TARKWA	DEP16/41	DEP16	DEP16	40	41	0.33		
TARKWA	DEP16/42	DEP16	DEP16	41	42	0.77		
TARKWA	DEP16/43	DEP16	DEP16	42	43	0.27		
TARKWA	DEP16/44	DEP16	DEP16	43	44	0.22		
TARKWA	DEP16/45	DEP16	DEP16	44	45	0.13		
TARKWA	DEP16/46	DEP16	DEP16	45	46	0.25		
TARKWA	DEP16/47	DEP16	DEP16	46	47	0.91		
TARKWA	DEP16/48	DEP16	DEP16	47	48	1.67		
TARKWA	DEP16/49	DEP16	DEP16	48	49	1.23		
TARKWA	DEP16/50	DEP16	DEP16	49	50	0.19		
TARKWA	DEP16/51	DEP16	DEP16	50	51	0.72		
TARKWA	DEP16/52	DEP16	DEP16	51	52	1.27		
TARKWA	DEP16/53	DEP16	DEP16	52	53	1.25		
TARKWA	DEP16/54	DEP16	DEP16	53	54	0.92		
TARKWA	DEP16/55	DEP16	DEP16	54	55	0.32		
TARKWA	DEP16/56	DEP16	DEP16	55	56	0.04		
TARKWA	DEP16/57	DEP16	DEP16	56	57	0.04		
TARKWA	DEP16/58	DEP16	DEP16	57	58	0.03		
TARKWA	DEP16/59	DEP16	DEP16	58	59	0.08		
TARKWA	DEP16/60	DEP16	DEP16	59	60	0.06		
TARKWA	DEP16/61	DEP16	DEP16	60	61	0.02		
TARKWA	DEP16/62	DEP16	DEP16	61	62	0.03		
TARKWA	DEP16/63	DEP16	DEP16	62	63	0.28		
TARKWA	DEP16/64	DEP16	DEP16	63	64	0.83		
TARKWA	DEP16/65	DEP16	DEP16	64	65	1.56		
TARKWA	DEP16/66	DEP16	DEP16	65	66	0.72		
TARKWA	DEP16/67	DEP16	DEP16	66	67	0.64		
TARKWA	DEP16/68	DEP16	DEP16	67	68	0.47		
TARKWA	DEP16/69	DEP16	DEP16	68	69	0.93		
TARKWA	DEP16/70	DEP16	DEP16	69	70	0.75		
TARKWA	DEP16/71	DEP16	DEP16	70	71	0.51		
TARKWA	DEP16/72	DEP16	DEP16	71	72	0.07		
TARKWA	DEP16/73	DEP16	DEP16	72	73	0.01		
TARKWA	DEP16/74	DEP16	DEP16	73	74	0.01		
TARKWA	DEP16/75	DEP16	DEP16	74	75	0.01		
TARKWA	DEP18/38	DEP18	DEP18	37	38	0.46		
TARKWA	DEP18/39	DEP18	DEP18	38	39	0.42		
TARKWA	DEP18/40	DEP18	DEP18	39	40	2.77		
TARKWA	DEP18/41	DEP18	DEP18	40	41	0.57		
TARKWA	DEP18/42	DEP18	DEP18	41	42	2.79		
TARKWA	DEP18/43	DEP18	DEP18	42	43	2.13		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP18/44	DEP18	DEP18	43	44	2.14		
TARKWA	DEP18/45	DEP18	DEP18	44	45	0.14		
TARKWA	DEP18/46	DEP18	DEP18	45	46	0.09		
TARKWA	DEP18/47	DEP18	DEP18	46	47	0.05		
TARKWA	DEP18/48	DEP18	DEP18	47	48	0.1		
TARKWA	DEP18/49	DEP18	DEP18	48	49	0.43		
TARKWA	DEP18/50	DEP18	DEP18	49	50	0.17		
TARKWA	DEP18/51	DEP18	DEP18	50	51	0.79		
TARKWA	DEP18/52	DEP18	DEP18	51	52	0.08		
TARKWA	DEP18/53	DEP18	DEP18	52	53	0.12		
TARKWA	DEP18/54	DEP18	DEP18	53	54	0.13		
TARKWA	DEP18/55	DEP18	DEP18	54	55	1.35		
TARKWA	DEP18/56	DEP18	DEP18	55	56	1.24		
TARKWA	DEP18/57	DEP18	DEP18	56	57	0.63		
TARKWA	DEP18/58	DEP18	DEP18	57	58	0.26		
TARKWA	DEP18/59	DEP18	DEP18	58	59	5.07		
TARKWA	DEP18/60	DEP18	DEP18	59	60	2.62		
TARKWA	DEP18/61	DEP18	DEP18	60	61	1.78		
TARKWA	DEP18/62	DEP18	DEP18	61	62	1.17		
TARKWA	DEP18/63	DEP18	DEP18	62	63	0.03		
TARKWA	DEP18/64	DEP18	DEP18	63	64	0.05		
TARKWA	DEP18/65	DEP18	DEP18	64	65	0.1		
TARKWA	DEP18/66	DEP18	DEP18	65	66	0.05		
TARKWA	DEP18/67	DEP18	DEP18	66	67	0.1		
TARKWA	DEP18/68	DEP18	DEP18	67	68	0.04		
TARKWA	DEP18/69	DEP18	DEP18	68	69	0.04		
TARKWA	DEP18/70	DEP18	DEP18	69	70	1.1		
TARKWA	DEP18/71	DEP18	DEP18	70	71	2.01		
TARKWA	DEP18/72	DEP18	DEP18	71	72	0.86		
TARKWA	DEP18/73	DEP18	DEP18	72	73	0.61		
TARKWA	DEP18/74	DEP18	DEP18	73	74	0.3		
TARKWA	DEP18/75	DEP18	DEP18	74	75	1.25		
TARKWA	DEP18/76	DEP18	DEP18	75	76	0.64		
TARKWA	DEP18/77	DEP18	DEP18	76	77	0.03		
TARKWA	DEP18/78	DEP18	DEP18	77	78	0.01		
TARKWA	DEP18/79	DEP18	DEP18	78	79	0.01		
TARKWA	DEP18/80	DEP18	DEP18	79	80	0.02		
TARKWA	DEP5/22	DEP5	DEP5	21	22	0.05		
TARKWA	DEP5/23	DEP5	DEP5	22	23	0.02		
TARKWA	DEP5/24	DEP5	DEP5	23	24	0.01		
TARKWA	DEP5/25	DEP5	DEP5	24	25	0.01		
TARKWA	DEP5/26	DEP5	DEP5	25	26	0.01		
TARKWA	DEP5/27	DEP5	DEP5	26	27	0.05		
TARKWA	DEP5/28	DEP5	DEP5	27	28	0.01		
TARKWA	DEP5/29	DEP5	DEP5	28	29	0.02		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP5/30	DEP5	29	30	2.45			
TARKWA	DEP5/31	DEP5	30	31	2.37			
TARKWA	DEP5/32	DEP5	31	32	1.73			
TARKWA	DEP5/33	DEP5	32	33	1.78			
TARKWA	DEP5/34	DEP5	33	34	0.77			
TARKWA	DEP5/35	DEP5	34	35	0.15			
TARKWA	DEP5/36	DEP5	35	36	1.4			
TARKWA	DEP5/37	DEP5	36	37	0.49			
TARKWA	DEP5/38	DEP5	37	38	0.48			
TARKWA	DEP5/39	DEP5	38	39	0.44			
TARKWA	DEP5/40	DEP5	39	40	0.73			
TARKWA	DEP5/41	DEP5	40	41	2.77			
TARKWA	DEP5/42	DEP5	41	42	1.27			
TARKWA	DEP5/43	DEP5	42	43	0.82			
TARKWA	DEP5/44	DEP5	43	44	0.59			
TARKWA	DEP5/45	DEP5	44	45	0.47			
TARKWA	DEP5/46	DEP5	45	46	0.41			
TARKWA	DEP5/47	DEP5	46	47	0.11			
TARKWA	DEP5/48	DEP5	47	48	1.19			
TARKWA	DEP5/49	DEP5	48	49	2.95			
TARKWA	DEP5/50	DEP5	49	50	0.82			
TARKWA	DEP5/51	DEP5	50	51	2.41			
TARKWA	DEP5/52	DEP5	51	52	5.31			
TARKWA	DEP5/53	DEP5	52	53	3.12			
TARKWA	DEP5/54	DEP5	53	54	1.68			
TARKWA	DEP5/55	DEP5	54	55	0.07			
TARKWA	DEP5/56	DEP5	55	56	0.06			
TARKWA	DEP5/57	DEP5	56	57	0.04			
TARKWA	DEP5/58	DEP5	57	58	0.08			
TARKWA	DEP5/59	DEP5	58	59	0.06			
TARKWA	DEP5/60	DEP5	59	60	0.04			
TARKWA	DEP5/61	DEP5	60	61	0.09			
TARKWA	DEP5/62	DEP5	61	62	0.04			
TARKWA	DEP5/63	DEP5	62	63	0.98			
TARKWA	DEP5/64	DEP5	63	64	0.33			
TARKWA	DEP5/65	DEP5	64	65	0.26			
TARKWA	DEP5/66	DEP5	65	66	0.33			
TARKWA	DEP5/67	DEP5	66	67	2.98			
TARKWA	DEP5/68	DEP5	67	68	0.46			
TARKWA	DEP5/69	DEP5	68	69	0.26			
TARKWA	DEP5/70	DEP5	69	70	1.59			
TARKWA	DEP5/71	DEP5	70	71	0.77			
TARKWA	DEP5/72	DEP5	71	72	0.48			
TARKWA	DEP5/73	DEP5	72	73	1.96			
TARKWA	DEP5/74	DEP5	73	74	1.08			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP5/75	DEP5	74	75	0.14			
TARKWA	DEP5/76	DEP5	75	76	0.04			
TARKWA	DEP5/77	DEP5	76	77	0.01			
TARKWA	DEP5/78	DEP5	77	78	0.01			
TARKWA	DEP6/24	DEP6	23	24	0.03			
TARKWA	DEP6/25	DEP6	24	25	2.16			
TARKWA	DEP6/26	DEP6	25	26	2.04			
TARKWA	DEP6/32	DEP6	31	32	0.75			
TARKWA	DEP6/33	DEP6	32	33	0.81			
TARKWA	DEP6/34	DEP6	33	34	0.34			
TARKWA	DEP6/35	DEP6	34	35	0.46			
TARKWA	DEP6/36	DEP6	35	36	4.48			
TARKWA	DEP6/37	DEP6	36	37	1.95			
TARKWA	DEP6/38	DEP6	37	38	0.63			
TARKWA	DEP6/39	DEP6	38	39	0.59			
TARKWA	DEP6/40	DEP6	39	40	0.54			
TARKWA	DEP6/41	DEP6	40	41	0.3			
TARKWA	DEP6/42	DEP6	41	42	1.86			
TARKWA	DEP6/43	DEP6	42	43	1.9			
TARKWA	DEP6/44	DEP6	43	44	1.66			
TARKWA	DEP6/45	DEP6	44	45	1.86			
TARKWA	DEP6/46	DEP6	45	46	1.49			
TARKWA	DEP6/47	DEP6	46	47	1.19			
TARKWA	DEP6/48	DEP6	47	48	1.75			
TARKWA	DEP6/49	DEP6	48	49	0.42			
TARKWA	DEP6/50	DEP6	49	50	0.06			
TARKWA	DEP6/51	DEP6	50	51	0.03			
TARKWA	DEP6/52	DEP6	51	52	0.04			
TARKWA	DEP6/53	DEP6	52	53	0.04			
TARKWA	DEP6/54	DEP6	53	54	0.07			
TARKWA	DEP6/55	DEP6	54	55	0.09			
TARKWA	DEP6/56	DEP6	55	56	0.03			
TARKWA	DEP6/57	DEP6	56	57	0.04			
TARKWA	DEP6/58	DEP6	57	58	0.81			
TARKWA	DEP6/59	DEP6	58	59	0.42			
TARKWA	DEP6/60	DEP6	59	60	0.55			
TARKWA	DEP6/61	DEP6	60	61	0.92			
TARKWA	DEP6/62	DEP6	61	62	0.62			
TARKWA	DEP6/63	DEP6	62	63	0.5			
TARKWA	DEP6/64	DEP6	63	64	1.58			
TARKWA	DEP6/65	DEP6	64	65	1.52			
TARKWA	DEP6/66	DEP6	65	66	0.31			
TARKWA	DEP6/67	DEP6	66	67	1.47			
TARKWA	DEP6/68	DEP6	67	68	2.12			
TARKWA	DEP6/69	DEP6	68	69	0.07			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		DEP6/70	DEP6	69	70		0.05	
TARKWA		DEP6/71	DEP6	70	71		0.03	
TARKWA		DEP6/72	DEP6	71	72		0.01	
TARKWA		DEP6/73	DEP6	72	73		0.02	
TARKWA		DEP6/74	DEP6	73	74		0.02	
TARKWA		DEP8/33	DEP8	32	33		0.02	
TARKWA		DEP8/34	DEP8	33	34		0.08	
TARKWA		DEP8/35	DEP8	34	35		0.17	
TARKWA		DEP8/36	DEP8	35	36		0.02	
TARKWA		DEP8/37	DEP8	36	37		0.03	
TARKWA		DEP8/38	DEP8	37	38		0.01	
TARKWA		DEP8/39	DEP8	38	39		0.2	
TARKWA		DEP8/40	DEP8	39	40		5.53	
TARKWA		DEP8/41	DEP8	40	41		1.51	
TARKWA		DEP8/42	DEP8	41	42		0.71	
TARKWA		DEP8/43	DEP8	42	43		1.3	
TARKWA		DEP8/44	DEP8	43	44		0.35	
TARKWA		DEP8/45	DEP8	44	45		0.55	
TARKWA		DEP8/46	DEP8	45	46		2.07	
TARKWA		DEP8/47	DEP8	46	47		0.68	
TARKWA		DEP8/48	DEP8	47	48		0.57	
TARKWA		DEP8/49	DEP8	48	49		0.57	
TARKWA		DEP8/50	DEP8	49	50		2.54	
TARKWA		DEP8/51	DEP8	50	51		0.71	
TARKWA		DEP8/52	DEP8	51	52		1.23	
TARKWA		DEP8/53	DEP8	52	53		1.69	
TARKWA		DEP8/54	DEP8	53	54		0.15	
TARKWA		DEP8/55	DEP8	54	55		1.39	
TARKWA		DEP8/56	DEP8	55	56		1.64	
TARKWA		DEP8/57	DEP8	56	57		2.17	
TARKWA		DEP8/58	DEP8	57	58		1.83	
TARKWA		DEP8/59	DEP8	58	59		2.34	
TARKWA		DEP8/60	DEP8	59	60		2.79	
TARKWA		DEP8/61	DEP8	60	61		3.97	
TARKWA		DEP8/62	DEP8	61	62		0.78	
TARKWA		DEP8/63	DEP8	62	63		0.04	
TARKWA		DEP8/64	DEP8	63	64		0.03	
TARKWA		DEP8/65	DEP8	64	65		0.03	
TARKWA		DEP8/66	DEP8	65	66		0.22	
TARKWA		DEP8/67	DEP8	66	67		0.09	
TARKWA		DEP8/68	DEP8	67	68		0.03	
TARKWA		DEP8/69	DEP8	68	69		0.02	
TARKWA		DEP8/70	DEP8	69	70		0.12	
TARKWA		DEP8/71	DEP8	70	71		0.27	
TARKWA		DEP8/72	DEP8	71	72		0.4	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	DEP8/73	DEP8	72	73	0.56			
TARKWA	DEP8/74	DEP8	73	74	1.46			
TARKWA	DEP8/75	DEP8	74	75	3.4			
TARKWA	DEP8/76	DEP8	75	76	0.94			
TARKWA	DEP8/77	DEP8	76	77	2.07			
TARKWA	DEP8/78	DEP8	77	78	0.65			
TARKWA	DEP8/79	DEP8	78	79	0.54			
TARKWA	A83540	GDB1	0.03	0.38	0.63			
TARKWA	A83541	GDB1	0.38	0.73	1.55			
TARKWA	A83542	GDB1	0.73	0.93	1.67			
TARKWA	A83543	GDB1	0.93	1.13	3.91			
TARKWA	A83544	GDB1	1.13	1.53	1.26			
TARKWA	A83545	GDB1	1.53	1.93	4.12			
TARKWA	A83546	GDB1	1.93	2.33	2.84			
TARKWA	A83547	GDB1	2.33	2.73	0.42			
TARKWA	A83548	GDB1	2.73	3.13	0.29			
TARKWA	A83549	GDB1	3.13	3.5	0.78			
TARKWA	A83550	GDB1	3.5	3.9	0.11			
TARKWA	A83551	GDB1	3.9	4.3	0.18			
TARKWA	A83552	GDB1	4.3	4.52	0.41			
TARKWA	A83553	GDB1	4.52	4.73	0.39			
TARKWA	A83554	GDB1	4.73	5.02	2.1			
TARKWA	A83555	GDB1	5.02	5.3	2.32			
TARKWA	A83556	GDB1	5.3	5.59	0.83			
TARKWA	A83557	GDB1	5.59	5.95	1.91			
TARKWA	A83558	GDB1	5.95	6.31	1.66			
TARKWA	A83559	GDB1	6.31	6.67	0.94			
TARKWA	A83560	GDB1	6.67	7.03	0.14			
TARKWA	A83561	GDB1	7.03	7.39	1.84			
TARKWA	A83562	GDB1	7.39	7.74	2.86			
TARKWA	A83563	GDB1	7.74	8.09	2.04			
TARKWA	A83564	GDB1	8.09	8.44	0.09			
TARKWA	A83565	GDB1	8.44	8.66	0.01			
TARKWA	A83566	GDB1	8.66	8.89	0.01			
TARKWA	A83567	GDB1	8.89	9.23	0.02			
TARKWA	A83568	GDB1	9.23	9.58	0.01			
TARKWA	A83569	GDB1	9.58	9.78	0.01			
TARKWA	A83570	GDB1	9.78	10.12	0.05			
TARKWA	A83571	GDB1	10.12	10.46	0.01			
TARKWA	A83572	GDB1	10.46	10.8	0.04			
TARKWA	A83573	GDB1	10.8	11.13	0.02			
TARKWA	A83574	GDB1	11.13	11.37	0.01			
TARKWA	A83575	GDB1	11.37	11.7	0.08			
TARKWA	A83576	GDB1	11.7	11.9	0.03			
TARKWA	A83577	GDB1	11.9	12.1	0.02			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A83578	GDB1	12.1	12.37	0.04			
TARKWA	A83579	GDB1	12.37	12.71	0.12			
TARKWA	A83580	GDB1	12.71	13.05	0.07			
TARKWA	A83581	GDB1	13.05	13.37	0.37			
TARKWA	A83582	GDB1	13.37	13.71	0.03			
TARKWA	A83583	GDB1	13.71	14.05	0.03			
TARKWA	A83584	GDB1	14.05	14.39	0.05			
TARKWA	A83585	GDB1	14.39	14.73	0.03			
TARKWA	A83586	GDB1	14.73	14.98	0.06			
TARKWA	A83587	GDB1	14.98	15.25	0.03			
TARKWA	A83588	GDB1	15.25	15.51	0.11			
TARKWA	A83589	GDB1	15.51	15.75	0.09			
TARKWA	A83590	GDB1	15.75	16.06	0.03			
TARKWA	A83591	GDB1	16.06	16.37	0.05			
TARKWA	A83592	GDB1	16.37	16.57	4.12			
TARKWA	A83593	GDB1	16.57	16.78	2.76			
TARKWA	A83594	GDB1	16.78	17.11	6.34			
TARKWA	A83595	GDB1	17.11	17.44	1.7			
TARKWA	A83596	GDB1	17.44	17.64	3.14			
TARKWA	A83597	GDB1	17.64	17.95	2.69			
TARKWA	A83598	GDB1	17.95	18.15	0.18			
TARKWA	A83599	GDB1	18.15	18.35	0.42			
TARKWA	A83600	GDB1	18.35	18.6	0.15			
TARKWA	A83601	GDB1	18.6	18.84	0.4			
TARKWA	A83602	GDB1	18.84	19.07	0.72			
TARKWA	A83603	GDB1	19.07	19.36	0.99			
TARKWA	A83604	GDB1	19.36	19.56	0.24			
TARKWA	A83605	GDB1	19.56	19.95	0.06			
TARKWA	A83606	GDB1	19.95	20.15	1.51			
TARKWA	A83607	GDB1	20.15	20.47	0.03			
TARKWA	A83608	GDB1	20.47	20.78	0.08			
TARKWA	A83609	GDB1	20.78	21	0.09			
TARKWA	A83610	GDB1	21	21.3	3.21			
TARKWA	A83611	GDB1	21.3	21.59	0.94			
TARKWA	A83612	GDB1	21.59	21.83	0.72			
TARKWA	A83613	GDB1	21.83	22.03	1.8			
TARKWA	A83614	GDB1	22.03	22.35	0.51			
TARKWA	A83615	GDB1	22.35	22.7	0.08			
TARKWA	A83616	GDB1	22.7	23.05	0.41			
TARKWA	A83617	GDB1	23.05	23.41	0.27			
TARKWA	A83618	GDB1	23.41	23.73	0.04			
TARKWA	A83619	GDB1	23.73	23.98	0.3			
TARKWA	A83620	GDB1	23.98	24.18	1.58			
TARKWA	A83621	GDB1	24.18	24.41	0.47			
TARKWA	A83622	GDB1	24.41	24.79	0.35			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A83623	GDB1	24.79	25.03	0.64			
TARKWA	A83624	GDB1	25.03	25.23	0.02			
TARKWA	A83625	GDB1	25.23	25.63	0.01			
TARKWA	A83626	GDB1	25.63	26.03	0.02			
TARKWA	A83627	GDB1	26.03	27.03	0.01			
TARKWA	A83628	GDB1	27.03	28.03	0.03			
TARKWA	A57707	GDB10	47.34	48.34	0.02			
TARKWA	A57708	GDB10	48.34	49.34	0.01			
TARKWA	A57709	GDB10	49.34	49.74	0.02			
TARKWA	A57710	GDB10	49.74	50.14	0.02			
TARKWA	A57711	GDB10	50.14	50.34	0.01			
TARKWA	A57712	GDB10	50.34	50.62	0.02			
TARKWA	A57713	GDB10	50.62	50.91	0.05			
TARKWA	A57714	GDB10	50.91	51.31	0.01			
TARKWA	A57715	GDB10	51.31	51.71	0.05			
TARKWA	A57716	GDB10	51.71	52.11	0.03			
TARKWA	A57717	GDB10	52.11	52.38	0.02			
TARKWA	A57718	GDB10	52.38	52.64	0.01			
TARKWA	A57719	GDB10	52.64	52.98	0.12			
TARKWA	A57720	GDB10	52.98	53.38	0.07			
TARKWA	A57721	GDB10	53.38	53.78	0.09			
TARKWA	A57722	GDB10	53.78	54.18	0.26			
TARKWA	A57723	GDB10	54.18	55.18	0.03			
TARKWA	A57724	GDB10	55.18	56.18	0.01			
TARKWA	A57725	GDB10	56.18	57.18	0.01			
TARKWA	A57726	GDB10	57.18	58.18	0.01			
TARKWA	A57727	GDB10	58.18	59.18	0.02			
TARKWA	A57728	GDB10	59.18	60.18	0.01			
TARKWA	A57729	GDB10	60.18	61.18	0.01			
TARKWA	A57730	GDB10	61.18	62.18	0.01			
TARKWA	A57731	GDB10	62.18	62.58	0.01			
TARKWA	A57732	GDB10	62.58	62.98	0.01			
TARKWA	A57733	GDB10	62.98	63.35	0.03			
TARKWA	A57734	GDB10	63.35	63.75	0.44			
TARKWA	A57735	GDB10	63.75	64.15	1.46			
TARKWA	A57736	GDB10	64.15	64.44	4.16			
TARKWA	A57737	GDB10	64.44	64.73	1.05			
TARKWA	A57738	GDB10	64.73	65.13	0.25			
TARKWA	A57739	GDB10	65.13	65.53	0.31			
TARKWA	A57740	GDB10	65.53	65.93	0.1			
TARKWA	A57741	GDB10	65.93	66.14	0.27			
TARKWA	A57742	GDB10	66.14	66.35	0.04			
TARKWA	A57743	GDB10	66.35	66.62	0.08			
TARKWA	A57744	GDB10	66.62	66.89	0.04			
TARKWA	A57745	GDB10	66.89	67.09	0.14			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A57746	GDB10	67.09	67.3	2.06			
TARKWA	A57747	GDB10	67.3	67.7	0.21			
TARKWA	A57748	GDB10	67.7	68.1	0.21			
TARKWA	A57749	GDB10	68.1	68.5	0.11			
TARKWA	A57750	GDB10	68.5	68.9	0.21			
TARKWA	A87101	GDB10	68.9	69.3	0.22			
TARKWA	A87102	GDB10	69.3	69.7	0.85			
TARKWA	A87103	GDB10	69.7	70.1	0.43			
TARKWA	A87104	GDB10	70.1	70.5	1.53			
TARKWA	A87105	GDB10	70.5	70.8	0.28			
TARKWA	A87106	GDB10	70.8	71.04	0.28			
TARKWA	A87107	GDB10	71.04	71.44	0.05			
TARKWA	A87108	GDB10	71.44	71.84	0.03			
TARKWA	A87109	GDB10	71.84	72.24	0.03			
TARKWA	A87110	GDB10	72.24	72.5	0.04			
TARKWA	A87111	GDB10	72.5	72.9	0.04			
TARKWA	A87112	GDB10	72.9	73.3	0.12			
TARKWA	A87113	GDB10	73.3	73.7	0.16			
TARKWA	A87114	GDB10	73.7	74.1	0.77			
TARKWA	A87115	GDB10	74.1	74.43	4.53			
TARKWA	A87116	GDB10	74.43	74.68	2.64			
TARKWA	A87117	GDB10	74.68	74.93	1			
TARKWA	A87118	GDB10	74.93	75.18	0.44			
TARKWA	A87119	GDB10	75.18	75.43	0.81			
TARKWA	A87120	GDB10	75.43	75.71	0.35			
TARKWA	A87121	GDB10	75.71	76.01	0.13			
TARKWA	A87122	GDB10	76.01	76.31	0.08			
TARKWA	A87123	GDB10	76.31	76.68	0.15			
TARKWA	A87124	GDB10	76.68	77.05	0.17			
TARKWA	A87125	GDB10	77.05	77.26	0.18			
TARKWA	A87126	GDB10	77.26	77.48	0.82			
TARKWA	A87127	GDB10	77.48	77.88	2.64			
TARKWA	A87128	GDB10	77.88	78.28	0.34			
TARKWA	A87129	GDB10	78.28	78.66	9.02			
TARKWA	A87130	GDB10	78.66	79.06	1.64			
TARKWA	A87131	GDB10	79.06	79.46	0.28			
TARKWA	A87132	GDB10	79.46	79.86	0.1			
TARKWA	A87133	GDB10	79.86	80.26	0.04			
TARKWA	A87134	GDB10	80.26	80.54	0.06			
TARKWA	A87135	GDB10	80.54	80.94	0.06			
TARKWA	A87136	GDB10	80.94	81.34	0.05			
TARKWA	A87137	GDB10	81.34	81.74	0.28			
TARKWA	A87138	GDB10	81.74	82.03	0.06			
TARKWA	A87139	GDB10	82.03	82.28	0.06			
TARKWA	A87140	GDB10	82.28	82.53	0.17			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A87141	GDB10	82.53	82.81	0.08			
TARKWA	A87142	GDB10	82.81	83.09	0.17			
TARKWA	A87143	GDB10	83.09	83.39	0.06			
TARKWA	A87144	GDB10	83.39	83.69	0.06			
TARKWA	A87145	GDB10	83.69	84	0.1			
TARKWA	A87146	GDB10	84	84.4	0.08			
TARKWA	A87147	GDB10	84.4	84.8	0.1			
TARKWA	A87148	GDB10	84.8	85.2	0.34			
TARKWA	A87149	GDB10	85.2	85.6	0.12			
TARKWA	A87150	GDB10	85.6	86	0.38			
TARKWA	A92053	GDB10	86	86.31	2.85			
TARKWA	A92054	GDB10	86.31	86.51	0.08			
TARKWA	A92055	GDB10	86.51	86.91	0.07			
TARKWA	A92056	GDB10	86.91	87.31	0.04			
TARKWA	A92057	GDB10	87.31	88.31	0.04			
TARKWA	A92058	GDB10	88.31	89.31	0.07			
TARKWA	A95491	GDB27	10.66	11.66	0.04			
TARKWA	A95492	GDB27	11.66	12.66	0.04			
TARKWA	A95493	GDB27	12.66	13.06	0.03			
TARKWA	A95494	GDB27	13.06	13.46	0.05			
TARKWA	A95495	GDB27	13.46	13.66	0.03			
TARKWA	A95496	GDB27	13.66	13.9	0.09			
TARKWA	A95497	GDB27	13.9	14.11	0.03			
TARKWA	A95498	GDB27	14.11	14.48	0.02			
TARKWA	A95499	GDB27	14.48	14.85	0.04			
TARKWA	A95500	GDB27	14.85	15.05	0.08			
TARKWA	A95501	GDB27	15.05	15.25	0.02			
TARKWA	A95502	GDB27	15.25	15.46	0.09			
TARKWA	A95503	GDB27	15.46	15.68	0.35			
TARKWA	A95504	GDB27	15.68	15.92	0.03			
TARKWA	A95505	GDB27	15.92	16.32	0.01			
TARKWA	A95506	GDB27	16.32	16.72	0.01			
TARKWA	A95507	GDB27	16.72	17.12	0.04			
TARKWA	A95508	GDB27	17.12	17.36	0.04			
TARKWA	A95509	GDB27	17.36	17.56	0.06			
TARKWA	A95510	GDB27	17.56	17.91	0.03			
TARKWA	A95511	GDB27	17.91	18.31	0.05			
TARKWA	A95512	GDB27	18.31	18.71	0.04			
TARKWA	A95513	GDB27	18.71	19.11	0.02			
TARKWA	A95514	GDB27	19.11	19.51	0.01			
TARKWA	A95515	GDB27	19.51	19.91	0.05			
TARKWA	A95516	GDB27	19.91	20.21	6.26			
TARKWA	A95517	GDB27	20.21	20.41	1.26			
TARKWA	A95518	GDB27	20.41	20.69	0.48			
TARKWA	A95519	GDB27	20.69	20.92	3.77			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95520	GDB27	20.92	21.26	4.36			
TARKWA	A95521	GDB27	21.26	21.53	4.08			
TARKWA	A95522	GDB27	21.53	21.8	0.98			
TARKWA	A95523	GDB27	21.8	22.07	3.36			
TARKWA	A95524	GDB27	22.07	22.27	0.23			
TARKWA	A95525	GDB27	22.27	22.52	12.5			
TARKWA	A95526	GDB27	22.52	22.85	1.59			
TARKWA	A95527	GDB27	22.85	23.05	0.29			
TARKWA	A95528	GDB27	23.05	23.25	5.2			
TARKWA	A95529	GDB27	23.25	23.45	0.32			
TARKWA	A95530	GDB27	23.45	23.78	0.36			
TARKWA	A95531	GDB27	23.78	24.1	0.53			
TARKWA	A95532	GDB27	24.1	24.44	0.21			
TARKWA	A95533	GDB27	24.44	24.78	0.08			
TARKWA	A95534	GDB27	24.78	25.02	0.03			
TARKWA	A95535	GDB27	25.02	25.26	0.03			
TARKWA	A95536	GDB27	25.26	25.56	0.41			
TARKWA	A95537	GDB27	25.56	25.76	0.11			
TARKWA	A95538	GDB27	25.76	26.13	0.04			
TARKWA	A95539	GDB27	26.13	26.33	0.71			
TARKWA	A95540	GDB27	26.33	26.64	0.06			
TARKWA	A95541	GDB27	26.64	26.93	4.69			
TARKWA	A95542	GDB27	26.93	27.22	0.62			
TARKWA	A95543	GDB27	27.22	27.42	0.46			
TARKWA	A95544	GDB27	27.42	27.72	0.53			
TARKWA	A95545	GDB27	27.72	27.96	0.1			
TARKWA	A95546	GDB27	27.96	28.21	0.03			
TARKWA	A95547	GDB27	28.21	28.46	0.11			
TARKWA	A95548	GDB27	28.46	28.75	0.17			
TARKWA	A95549	GDB27	28.75	29.08	0.51			
TARKWA	A95550	GDB27	29.08	29.29	0.03			
TARKWA	A95551	GDB27	29.29	29.54	0.27			
TARKWA	A95552	GDB27	29.54	29.78	0.16			
TARKWA	A95553	GDB27	29.78	30.08	0.05			
TARKWA	A95554	GDB27	30.08	30.31	2.15			
TARKWA	A95555	GDB27	30.31	30.54	0.5			
TARKWA	A95556	GDB27	30.54	30.76	0.19			
TARKWA	A95557	GDB27	30.76	31.76	0.08			
TARKWA	A95558	GDB27	31.76	32.76	0.29			
TARKWA	A95559	GDB27	32.76	33.16	0.04			
TARKWA	A95560	GDB27	33.16	33.56	0.02			
TARKWA	A95561	GDB27	33.56	33.76	0.03			
TARKWA	A95562	GDB27	33.76	33.96	0.94			
TARKWA	A95563	GDB27	33.96	34.34	1.3			
TARKWA	A95564	GDB27	34.34	34.72	0.16			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95565	GDB27	34.72	34.99	0.05			
TARKWA	A95566	GDB27	34.99	35.25	0.09			
TARKWA	A95567	GDB27	35.25	35.45	0.5			
TARKWA	A95568	GDB27	35.45	35.66	0.39			
TARKWA	A95569	GDB27	35.66	35.96	0.24			
TARKWA	A95570	GDB27	35.96	36.16	3.67			
TARKWA	A95571	GDB27	36.16	36.37	2.82			
TARKWA	A95572	GDB27	36.37	36.57	1.38			
TARKWA	A95573	GDB27	36.57	36.77	1.14			
TARKWA	A95574	GDB27	36.77	36.97	0.17			
TARKWA	A95575	GDB27	36.97	37.17	0.04			
TARKWA	A95576	GDB27	37.17	37.57	0.26			
TARKWA	A95577	GDB27	37.57	37.97	0.73			
TARKWA	A95578	GDB27	37.97	38.25	2.16			
TARKWA	A95579	GDB27	38.25	38.56	1.74			
TARKWA	A95580	GDB27	38.56	38.78	0.27			
TARKWA	A95581	GDB27	38.78	39	1.78			
TARKWA	A95582	GDB27	39	39.23	0.25			
TARKWA	A95583	GDB27	39.23	39.47	0.05			
TARKWA	A95584	GDB27	39.47	39.87	0.65			
TARKWA	A95585	GDB27	39.87	40.15	2			
TARKWA	A95586	GDB27	40.15	40.42	6.81			
TARKWA	A95587	GDB27	40.42	40.7	2.42			
TARKWA	A95588	GDB27	40.7	40.9	2.06			
TARKWA	A95589	GDB27	40.9	41.15	3.93			
TARKWA	A95590	GDB27	41.15	41.45	0.59			
TARKWA	A95591	GDB27	41.45	41.75	0.28			
TARKWA	A95592	GDB27	41.75	41.95	0.06			
TARKWA	A95593	GDB27	41.95	42.35	0.04			
TARKWA	A95594	GDB27	42.35	42.75	0.03			
TARKWA	A95595	GDB27	42.75	43.75	0.02			
TARKWA	A95596	GDB27	43.75	44.15	0.06			
TARKWA	A95597	GDB27	44.15	44.55	0.02			
TARKWA	A95598	GDB27	44.55	44.76	0.01			
TARKWA	A95599	GDB27	44.76	44.96	0.1			
TARKWA	A95600	GDB27	44.96	45.28	0.04			
TARKWA	A95601	GDB27	45.28	45.6	0.08			
TARKWA	A95602	GDB27	45.6	45.91	0.07			
TARKWA	A95603	GDB27	45.91	46.17	0.14			
TARKWA	A95604	GDB27	46.17	46.42	0.29			
TARKWA	A95605	GDB27	46.42	46.67	0.04			
TARKWA	A95606	GDB27	46.67	46.95	0.04			
TARKWA	A95607	GDB27	46.95	47.15	0.06			
TARKWA	A95608	GDB27	47.15	47.4	0.05			
TARKWA	A95609	GDB27	47.4	47.66	0.03			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95610	GDB27	47.66	47.96	0.19			
TARKWA	A95611	GDB27	47.96	48.16	0.11			
TARKWA	A95612	GDB27	48.16	48.56	0.03			
TARKWA	A95613	GDB27	48.56	49.56	0.03			
TARKWA	A95614	GDB27	49.56	50.56	0.01			
TARKWA	A95615	GDB27	50.56	50.83	0.1			
TARKWA	A95616	GDB27	50.83	51.07	1.91			
TARKWA	A95617	GDB27	51.07	51.35	0.4			
TARKWA	A95618	GDB27	51.35	51.64	0.41			
TARKWA	A95619	GDB27	51.64	51.94	1.5			
TARKWA	A95620	GDB27	51.94	52.25	2.93			
TARKWA	A95621	GDB27	52.25	52.55	0.52			
TARKWA	A95622	GDB27	52.55	52.86	0.35			
TARKWA	A95623	GDB27	52.86	53.16	0.31			
TARKWA	A95624	GDB27	53.16	53.46	0.36			
TARKWA	A95625	GDB27	53.46	53.75	0.08			
TARKWA	A95626	GDB27	53.75	54.02	0.44			
TARKWA	A95627	GDB27	54.02	54.33	0.81			
TARKWA	A95628	GDB27	54.33	54.63	0.09			
TARKWA	A95629	GDB27	54.63	54.85	0.04			
TARKWA	A95630	GDB27	54.85	55.07	0.01			
TARKWA	A95631	GDB27	55.07	55.27	1.24			
TARKWA	A95632	GDB27	55.27	55.54	0.34			
TARKWA	A95633	GDB27	55.54	55.79	1.28			
TARKWA	A95634	GDB27	55.79	56.01	0.18			
TARKWA	A95635	GDB27	56.01	56.23	3.17			
TARKWA	A95636	GDB27	56.23	56.55	0.3			
TARKWA	A95637	GDB27	56.55	56.85	0.07			
TARKWA	A95638	GDB27	56.85	57.16	1.17			
TARKWA	A95639	GDB27	57.16	57.53	2			
TARKWA	A95640	GDB27	57.53	57.73	0.65			
TARKWA	A95641	GDB27	57.73	58.1	0.35			
TARKWA	A95642	GDB27	58.1	58.38	0.38			
TARKWA	A95643	GDB27	58.38	58.65	0.03			
TARKWA	A95644	GDB27	58.65	58.9	0.38			
TARKWA	A95645	GDB27	58.9	59.1	0.03			
TARKWA	A95646	GDB27	59.1	59.3	0.01			
TARKWA	A95647	GDB27	59.3	59.7	0.02			
TARKWA	A95648	GDB27	59.7	60.1	0.01			
TARKWA	A95649	GDB27	60.1	61.1	0.01			
TARKWA	A95650	GDB27	61.1	62.1	0.01			
TARKWA	A95651	GDB28	0.75	1.75	0.02			
TARKWA	A95652	GDB28	1.75	2.75	0.02			
TARKWA	A95653	GDB28	2.75	3.15	0.04			
TARKWA	A95654	GDB28	3.15	3.55	0.59			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95655	GDB28	3.55	3.75	0.07			
TARKWA	A95656	GDB28	3.75	4.15	2.78			
TARKWA	A95657	GDB28	4.15	4.35	0.99			
TARKWA	A95658	GDB28	4.35	4.55	1.27			
TARKWA	A95659	GDB28	4.55	4.75	1.62			
TARKWA	A95660	GDB28	4.75	4.95	0.39			
TARKWA	A95661	GDB28	4.95	5.29	2.25			
TARKWA	A95662	GDB28	5.29	5.69	1.45			
TARKWA	A95663	GDB28	5.69	6	0.8			
TARKWA	A95664	GDB28	6	6.33	4.01			
TARKWA	A95665	GDB28	6.33	6.55	1.32			
TARKWA	A95666	GDB28	6.55	6.78	0.59			
TARKWA	A95667	GDB28	6.78	7	0.92			
TARKWA	A95668	GDB28	7	7.29	0.62			
TARKWA	A95669	GDB28	7.29	7.68	0.28			
TARKWA	A95670	GDB28	7.68	8.06	0.12			
TARKWA	A95671	GDB28	8.06	8.27	0.17			
TARKWA	A95672	GDB28	8.27	8.48	0.07			
TARKWA	A95673	GDB28	8.48	8.77	0.14			
TARKWA	A95674	GDB28	8.77	9.01	0.5			
TARKWA	A95675	GDB28	9.01	9.38	0.25			
TARKWA	A95676	GDB28	9.38	9.88	1.77			
TARKWA	A95677	GDB28	9.88	10.08	3.15			
TARKWA	A95678	GDB28	10.08	10.34	1.8			
TARKWA	A95679	GDB28	10.34	10.72	0.47			
TARKWA	A95680	GDB28	10.72	11	1.95			
TARKWA	A95681	GDB28	11	11.22	0.49			
TARKWA	A95682	GDB28	11.22	11.5	0.75			
TARKWA	A95683	GDB28	11.5	11.8	3.2			
TARKWA	A95684	GDB28	11.8	12.09	0.89			
TARKWA	A95685	GDB28	12.09	12.38	2.69			
TARKWA	A95686	GDB28	12.38	12.58	1.81			
TARKWA	A95687	GDB28	12.58	12.87	0.78			
TARKWA	A95688	GDB28	12.87	13.14	0.23			
TARKWA	A95689	GDB28	13.14	13.65	0.36			
TARKWA	A95690	GDB28	13.65	14.16	0.51			
TARKWA	A95691	GDB28	14.16	14.5	0.49			
TARKWA	A95692	GDB28	14.5	14.9	0.39			
TARKWA	A95693	GDB28	14.9	15.3	2.82			
TARKWA	A95694	GDB28	15.3	15.65	0.97			
TARKWA	A95695	GDB28	15.65	15.86	0.13			
TARKWA	A95696	GDB28	15.86	16.06	0.15			
TARKWA	A95697	GDB28	16.06	16.36	2.6			
TARKWA	A95698	GDB28	16.36	16.82	0.29			
TARKWA	A95699	GDB28	16.82	17.36	0.13			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95700	GDB28	17.36	17.88	0.43			
TARKWA	A95701	GDB28	17.88	18.08	2.9			
TARKWA	A95702	GDB28	18.08	18.5	2.24			
TARKWA	A95703	GDB28	18.5	18.8	0.24			
TARKWA	A95704	GDB28	18.8	19.1	2.67			
TARKWA	A95705	GDB28	19.1	19.4	0.78			
TARKWA	A95706	GDB28	19.4	19.69	0.27			
TARKWA	A95707	GDB28	19.69	19.97	0.5			
TARKWA	A95708	GDB28	19.97	20.5	0.2			
TARKWA	A95709	GDB28	20.5	20.78	2.9			
TARKWA	A95710	GDB28	20.78	21.18	0.12			
TARKWA	A95711	GDB28	21.18	21.6	3.03			
TARKWA	A95712	GDB28	21.6	21.96	1.01			
TARKWA	A95713	GDB28	21.96	22.4	3.02			
TARKWA	A95714	GDB28	22.4	22.84	1.75			
TARKWA	A95715	GDB28	22.84	23.46	0.08			
TARKWA	A95716	GDB28	23.46	23.79	2.33			
TARKWA	A95717	GDB28	23.79	24.12	0.54			
TARKWA	A95718	GDB28	24.12	24.46	0.11			
TARKWA	A95719	GDB28	24.46	24.69	0.23			
TARKWA	A95720	GDB28	24.69	24.89	0.06			
TARKWA	A95721	GDB28	24.89	25.27	1.12			
TARKWA	A95722	GDB28	25.27	25.59	0.79			
TARKWA	A95723	GDB28	25.59	25.92	0.71			
TARKWA	A95724	GDB28	25.92	26.26	7.21			
TARKWA	A95725	GDB28	26.26	26.59	4.56			
TARKWA	A95726	GDB28	26.59	26.92	1.82			
TARKWA	A95727	GDB28	26.92	27.18	0.72			
TARKWA	A95728	GDB28	27.18	27.46	0.87			
TARKWA	A95729	GDB28	27.46	27.68	0.03			
TARKWA	A95730	GDB28	27.68	27.92	0.04			
TARKWA	A95731	GDB28	27.92	28.19	0.01			
TARKWA	A95732	GDB28	28.19	29.19	0.02			
TARKWA	A95733	GDB28	29.19	29.73	0.01			
TARKWA	A95734	GDB28	29.73	29.97	0.14			
TARKWA	A95735	GDB28	29.97	30.36	0.06			
TARKWA	A95736	GDB28	30.36	30.75	0.04			
TARKWA	A95737	GDB28	30.75	31.14	0.04			
TARKWA	A95738	GDB28	31.14	31.54	0.05			
TARKWA	A95739	GDB28	31.54	31.94	0.01			
TARKWA	A95740	GDB28	31.94	32.14	0.25			
TARKWA	A95741	GDB28	32.14	32.37	0.08			
TARKWA	A95742	GDB28	32.37	32.77	0.03			
TARKWA	A95743	GDB28	32.77	33.17	0.03			
TARKWA	A95744	GDB28	33.17	33.4	0.01			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A95745	GDB28	33.4	33.6	0.05			
TARKWA	A95746	GDB28	33.6	33.8	0.01			
TARKWA	A95747	GDB28	33.8	34	0.34			
TARKWA	A95748	GDB28	34	34.22	0.01			
TARKWA	A95749	GDB28	34.22	34.42	0.13			
TARKWA	A95750	GDB28	34.42	34.77	0.02			
TARKWA	A95751	GDB28	34.77	35.1	0.01			
TARKWA	A95752	GDB28	35.1	35.43	0.01			
TARKWA	A95753	GDB28	35.43	35.63	0.02			
TARKWA	A95754	GDB28	35.63	35.94	0.01			
TARKWA	A95755	GDB28	35.94	36.24	0.05			
TARKWA	A95756	GDB28	36.24	36.54	0.02			
TARKWA	A95757	GDB28	36.54	36.83	3.65			
TARKWA	A95758	GDB28	36.83	37.13	0.41			
TARKWA	A95759	GDB28	37.13	37.36	0.09			
TARKWA	A95760	GDB28	37.36	37.68	0.28			
TARKWA	A95761	GDB28	37.68	38	0.77			
TARKWA	A95762	GDB28	38	38.25	0.52			
TARKWA	A95763	GDB28	38.25	38.45	0.28			
TARKWA	A95764	GDB28	38.45	38.71	2.11			
TARKWA	A95765	GDB28	38.71	38.98	0.39			
TARKWA	A95766	GDB28	38.98	39.28	0.65			
TARKWA	A95767	GDB28	39.28	39.51	0.46			
TARKWA	A95768	GDB28	39.51	39.74	0.32			
TARKWA	A95769	GDB28	39.74	40.01	0.05			
TARKWA	A95770	GDB28	40.01	40.31	1.05			
TARKWA	A95771	GDB28	40.31	40.61	0.95			
TARKWA	A95772	GDB28	40.61	41.01	0.33			
TARKWA	A95773	GDB28	41.01	41.31	0.43			
TARKWA	A95774	GDB28	41.31	41.69	0.77			
TARKWA	A95775	GDB28	41.69	41.95	0.5			
TARKWA	A95776	GDB28	41.95	42.35	1.1			
TARKWA	A95777	GDB28	42.35	42.75	0.57			
TARKWA	A95778	GDB28	42.75	43.15	0.23			
TARKWA	A95779	GDB28	43.15	43.55	0.07			
TARKWA	A95780	GDB28	43.55	43.9	0.5			
TARKWA	A95781	GDB28	43.9	44.25	4.08			
TARKWA	A95782	GDB28	44.25	44.57	3.51			
TARKWA	A95783	GDB28	44.57	44.89	4.52			
TARKWA	A95784	GDB28	44.89	45.12	5.33			
TARKWA	A95785	GDB28	45.12	45.32	0.16			
TARKWA	A95786	GDB28	45.32	45.72	0.05			
TARKWA	A95787	GDB28	45.72	46.12	0.04			
TARKWA	A95788	GDB28	46.12	46.92	0.01			
TARKWA	A95789	GDB28	46.92	47.71	0.01			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		A95790	GDB28	47.71		48.5	0.01	
TARKWA		GDB29_50_ns	GDB29	50		51	0.01	
TARKWA		GDB29_51_ns	GDB29	51		52	0.02	
TARKWA		GDB29_52_ns	GDB29	52		53	0.02	
TARKWA		GDB29_53_ns	GDB29	53		54	0.02	
TARKWA		GDB29_54_ns	GDB29	54		55	0.05	
TARKWA		GDB29_55_ns	GDB29	55		56	0.05	
TARKWA		GDB29_56_ns	GDB29	56		57	0.02	
TARKWA		GDB29_57_ns	GDB29	57		58	0.02	
TARKWA		GDB29_58_ns	GDB29	58		59	0.17	
TARKWA		GDB29_59_ns	GDB29	59		60	0.01	
TARKWA		GDB29_60_ns	GDB29	60		61	0.02	
TARKWA		GDB29_61_ns	GDB29	61		62	0.01	
TARKWA		GDB29_62_ns	GDB29	62		63	0.02	
TARKWA		GDB29_63_ns	GDB29	63		63.59	0.02	
TARKWA		GDB29_63.59_ns	GDB29	63.59		64.18	0.02	
TARKWA		GDB29_64.18_ns	GDB29	64.18		64.41	0.03	
TARKWA		GDB29_64.41_ns	GDB29	64.41		65.21	0.03	
TARKWA		GDB29_65.21_ns	GDB29	65.21		66.21	0.03	
TARKWA		GDB29_66.21_ns	GDB29	66.21		67.21	0.03	
TARKWA		GDB29_67.21_ns	GDB29	67.21		68.21	0.04	
TARKWA		GDB29_68.21_ns	GDB29	68.21		69.21	0.02	
TARKWA		GDB29_69.21_ns	GDB29	69.21		70.21	0.01	
TARKWA		GDB29_70.21_ns	GDB29	70.21		71.21	0.01	
TARKWA		GDB29_71.21_ns	GDB29	71.21		72.21	0.03	
TARKWA		GDB29_72.21_ns	GDB29	72.21		72.78	0.05	
TARKWA		GDB29_72.78_ns	GDB29	72.78		73.09	0.21	
TARKWA		GDB29_73.09_ns	GDB29	73.09		73.32	0.04	
TARKWA		GDB29_73.32_ns	GDB29	73.32		73.8	0.21	
TARKWA		GDB29_73.8_ns	GDB29	73.8		74.23	0.03	
TARKWA		GDB29_74.23_ns	GDB29	74.23		74.73	0.15	
TARKWA		GDB29_74.73_ns	GDB29	74.73		75.23	0.08	
TARKWA		GDB29_75.23_ns	GDB29	75.23		75.73	0.03	
TARKWA		GDB29_75.73_ns	GDB29	75.73		76.23	0.03	
TARKWA		GDB29_76.23_ns	GDB29	76.23		76.64	0.78	
TARKWA		GDB29_76.64_ns	GDB29	76.64		77.2	0.04	
TARKWA		GDB29_77.2_ns	GDB29	77.2		77.55	1.28	
TARKWA		GDB29_77.55_ns	GDB29	77.55		77.9	3.46	
TARKWA		GDB29_77.9_ns	GDB29	77.9		78.4	0.46	
TARKWA		GDB29_78.4_ns	GDB29	78.4		78.9	3.1	
TARKWA		GDB29_78.9_ns	GDB29	78.9		79.4	5.46	
TARKWA		GDB29_79.4_ns	GDB29	79.4		79.9	1.16	
TARKWA		GDB29_79.9_ns	GDB29	79.9		80.4	1.02	
TARKWA		GDB29_80.4_ns	GDB29	80.4		80.9	0.22	
TARKWA		GDB29_80.9_ns	GDB29	80.9		81.25	0.1	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB29_81.25_ns	GDB29	81.25	81.6	0.15		
TARKWA		GDB29_81.6_ns	GDB29	81.6	81.94	0.14		
TARKWA		GDB29_81.94_ns	GDB29	81.94	82.28	0.29		
TARKWA		GDB29_82.28_ns	GDB29	82.28	82.78	0.31		
TARKWA		GDB29_82.78_ns	GDB29	82.78	83.28	0.38		
TARKWA		GDB29_83.28_ns	GDB29	83.28	83.78	1.54		
TARKWA		GDB29_83.78_ns	GDB29	83.78	84.28	1.64		
TARKWA		GDB29_84.28_ns	GDB29	84.28	84.7	0.14		
TARKWA		GDB29_84.7_ns	GDB29	84.7	85.12	0.18		
TARKWA		GDB29_85.12_ns	GDB29	85.12	85.54	0.22		
TARKWA		GDB29_85.54_ns	GDB29	85.54	85.96	0.25		
TARKWA		GDB29_85.96_ns	GDB29	85.96	86.39	0.13		
TARKWA		GDB29_86.39_ns	GDB29	86.39	86.82	0.28		
TARKWA		GDB29_86.82_ns	GDB29	86.82	87.25	2.17		
TARKWA		GDB29_87.25_ns	GDB29	87.25	87.75	1.54		
TARKWA		GDB29_87.75_ns	GDB29	87.75	88.25	0.15		
TARKWA		GDB29_88.25_ns	GDB29	88.25	88.75	0.42		
TARKWA		GDB29_88.75_ns	GDB29	88.75	88.97	0.12		
TARKWA		GDB29_88.97_ns	GDB29	88.97	89.38	0.14		
TARKWA		GDB29_89.38_ns	GDB29	89.38	89.78	0.3		
TARKWA		GDB29_89.78_ns	GDB29	89.78	90.18	0.05		
TARKWA		GDB29_90.18_ns	GDB29	90.18	90.58	0.26		
TARKWA		GDB29_90.58_ns	GDB29	90.58	91.08	0.28		
TARKWA		GDB29_91.08_ns	GDB29	91.08	91.58	0.79		
TARKWA		GDB29_91.58_ns	GDB29	91.58	92.08	1.36		
TARKWA		GDB29_92.08_ns	GDB29	92.08	92.58	0.13		
TARKWA		GDB29_92.58_ns	GDB29	92.58	93.08	2.24		
TARKWA		GDB29_93.08_ns	GDB29	93.08	93.58	1.5		
TARKWA		GDB29_93.58_ns	GDB29	93.58	94.08	1.03		
TARKWA		GDB29_94.08_ns	GDB29	94.08	94.55	0.05		
TARKWA		GDB29_94.55_ns	GDB29	94.55	95.02	0.06		
TARKWA		GDB29_95.02_ns	GDB29	95.02	95.49	0.04		
TARKWA		GDB29_95.49_ns	GDB29	95.49	95.99	4.24		
TARKWA		GDB29_95.99_ns	GDB29	95.99	96.49	1.38		
TARKWA		GDB29_96.49_ns	GDB29	96.49	96.99	0.24		
TARKWA		GDB29_96.99_ns	GDB29	96.99	97.49	1.92		
TARKWA		GDB29_97.49_ns	GDB29	97.49	97.99	0.62		
TARKWA		GDB29_97.99_ns	GDB29	97.99	98.49	0.31		
TARKWA		GDB29_98.49_ns	GDB29	98.49	98.83	0.03		
TARKWA		GDB29_98.83_ns	GDB29	98.83	99.15	0.04		
TARKWA		GDB29_99.15_ns	GDB29	99.15	99.48	0.11		
TARKWA		GDB29_99.48_ns	GDB29	99.48	99.81	0.05		
TARKWA		GDB29_99.81_ns	GDB29	99.81	100.13	0.07		
TARKWA		GDB29_100.13_ns	GDB29	100.13	100.33	0.05		
TARKWA		GDB29_100.33_ns	GDB29	100.33	100.66	0.04		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB29_100.66_ns	GDB29	100.66	101.09		0.1	
TARKWA		GDB29_101.09_ns	GDB29	101.09	101.49		0.03	
TARKWA		GDB29_101.49_ns	GDB29	101.49	101.9		0.05	
TARKWA		GDB29_101.9_ns	GDB29	101.9	102.28		0.04	
TARKWA		GDB29_102.28_ns	GDB29	102.28	102.77		0.06	
TARKWA		GDB29_102.77_ns	GDB29	102.77	103.32		0.16	
TARKWA		GDB29_103.32_ns	GDB29	103.32	103.65		0.07	
TARKWA		GDB29_103.65_ns	GDB29	103.65	103.91		0.68	
TARKWA		GDB29_103.91_ns	GDB29	103.91	104.21		0.05	
TARKWA		GDB29_104.21_ns	GDB29	104.21	104.52		0.03	
TARKWA		GDB29_104.52_ns	GDB29	104.52	104.86		0.05	
TARKWA		GDB29_104.86_ns	GDB29	104.86	105.2		0.03	
TARKWA		GDB29_105.2_ns	GDB29	105.2	105.67		0.04	
TARKWA		GDB29_105.67_ns	GDB29	105.67	106.14		0.07	
TARKWA		GDB29_106.14_ns	GDB29	106.14	106.64		1.34	
TARKWA		GDB29_106.64_ns	GDB29	106.64	107.14		0.2	
TARKWA		GDB29_107.14_ns	GDB29	107.14	107.64		1.86	
TARKWA		GDB29_107.64_ns	GDB29	107.64	108.14		1.1	
TARKWA		GDB29_108.14_ns	GDB29	108.14	108.64		1.32	
TARKWA		GDB29_108.64_ns	GDB29	108.64	108.96		0.12	
TARKWA		GDB29_108.96_ns	GDB29	108.96	109.38		0.14	
TARKWA		GDB29_109.38_ns	GDB29	109.38	109.81		0.05	
TARKWA		GDB29_109.81_ns	GDB29	109.81	110.24		1.54	
TARKWA		GDB29_110.24_ns	GDB29	110.24	110.46		0.83	
TARKWA		GDB29_110.46_ns	GDB29	110.46	110.69		0.08	
TARKWA		GDB29_110.69_ns	GDB29	110.69	110.98		0.55	
TARKWA		GDB29_110.98_ns	GDB29	110.98	111.3		5.66	
TARKWA		GDB29_111.3_ns	GDB29	111.3	111.61		0.11	
TARKWA		GDB29_111.61_ns	GDB29	111.61	111.92		1.3	
TARKWA		GDB29_111.92_ns	GDB29	111.92	112.21		0.2	
TARKWA		GDB29_112.21_ns	GDB29	112.21	112.51		1.26	
TARKWA		GDB29_112.51_ns	GDB29	112.51	112.81		0.9	
TARKWA		GDB29_112.81_ns	GDB29	112.81	113.16		2.52	
TARKWA		GDB29_113.16_ns	GDB29	113.16	113.52		0.55	
TARKWA		GDB29_113.52_ns	GDB29	113.52	113.88		0.21	
TARKWA		GDB29_113.88_ns	GDB29	113.88	114.17		0.03	
TARKWA		GDB29_114.17_ns	GDB29	114.17	114.67		0.13	
TARKWA		GDB29_114.67_ns	GDB29	114.67	115.17		1	
TARKWA		GDB29_115.17_ns	GDB29	115.17	115.62		0.03	
TARKWA		GDB29_115.62_ns	GDB29	115.62	116.08		0.02	
TARKWA		GDB29_116.08_ns	GDB29	116.08	116.54		0.02	
TARKWA		GDB29_116.54_ns	GDB29	116.54	117		0.01	
TARKWA		GDB30_12_ns	GDB30	12	13		0.03	
TARKWA		GDB30_13_ns	GDB30	13	14		0.03	
TARKWA		GDB30_14_ns	GDB30	14	15		0.03	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB30_15_ns	GDB30	15		15.88	0.02	
TARKWA		GDB30_15.88_ns	GDB30	15.88		16.77	0.02	
TARKWA		GDB30_16.77_ns	GDB30	16.77		17.66	0.03	
TARKWA		GDB30_17.66_ns	GDB30	17.66		18.55	0.03	
TARKWA		GDB30_18.55_ns	GDB30	18.55		19.44	0.02	
TARKWA		GDB30_19.44_ns	GDB30	19.44		20.33	0.03	
TARKWA		GDB30_20.33_ns	GDB30	20.33		20.53	0.02	
TARKWA		GDB30_20.53_ns	GDB30	20.53		21.28	0.02	
TARKWA		GDB30_21.28_ns	GDB30	21.28		21.53	0.02	
TARKWA		GDB30_21.53_ns	GDB30	21.53		22.53	0.03	
TARKWA		GDB30_22.53_ns	GDB30	22.53		23.53	0.03	
TARKWA		GDB30_23.53_ns	GDB30	23.53		24.53	0.02	
TARKWA		GDB30_24.53_ns	GDB30	24.53		25.53	0.02	
TARKWA		GDB30_25.53_ns	GDB30	25.53		26.53	0.01	
TARKWA		GDB30_26.53_ns	GDB30	26.53		27.53	0.02	
TARKWA		GDB30_27.53_ns	GDB30	27.53		28.05	0.02	
TARKWA		GDB30_28.05_ns	GDB30	28.05		28.55	0.03	
TARKWA		GDB30_28.55_ns	GDB30	28.55		29	0.03	
TARKWA		GDB30_29_ns	GDB30	29		29.32	0.01	
TARKWA		GDB30_29.32_ns	GDB30	29.32		29.63	0.08	
TARKWA		GDB30_29.63_ns	GDB30	29.63		30.01	0.36	
TARKWA		GDB30_30.01_ns	GDB30	30.01		30.39	0.04	
TARKWA		GDB30_30.39_ns	GDB30	30.39		30.66	0.09	
TARKWA		GDB30_30.66_ns	GDB30	30.66		30.99	0.03	
TARKWA		GDB30_30.99_ns	GDB30	30.99		31.33	0.01	
TARKWA		GDB30_31.33_ns	GDB30	31.33		31.67	0.03	
TARKWA		GDB30_31.67_ns	GDB30	31.67		32.14	0.06	
TARKWA		GDB30_32.14_ns	GDB30	32.14		32.62	0.03	
TARKWA		GDB30_32.62_ns	GDB30	32.62		32.86	0.06	
TARKWA		GDB30_32.86_ns	GDB30	32.86		33.3	0.01	
TARKWA		GDB30_33.3_ns	GDB30	33.3		33.74	0.01	
TARKWA		GDB30_33.74_ns	GDB30	33.74		34.18	0.01	
TARKWA		GDB30_34.18_ns	GDB30	34.18		34.71	0.03	
TARKWA		GDB30_34.71_ns	GDB30	34.71		35.06	0.01	
TARKWA		GDB30_35.06_ns	GDB30	35.06		35.42	0.02	
TARKWA		GDB30_35.42_ns	GDB30	35.42		35.92	2.72	
TARKWA		GDB30_35.92_ns	GDB30	35.92		36.42	1.74	
TARKWA		GDB30_36.42_ns	GDB30	36.42		36.92	1.13	
TARKWA		GDB30_36.92_ns	GDB30	36.92		37.42	3.86	
TARKWA		GDB30_37.42_ns	GDB30	37.42		37.92	3.2	
TARKWA		GDB30_37.92_ns	GDB30	37.92		38.42	1.64	
TARKWA		GDB30_38.42_ns	GDB30	38.42		38.92	0.46	
TARKWA		GDB30_38.92_ns	GDB30	38.92		39.42	0.13	
TARKWA		GDB30_39.42_ns	GDB30	39.42		39.92	1.72	
TARKWA		GDB30_39.92_ns	GDB30	39.92		40.42	0.36	

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB30_40.42_ns	GDB30	40.42	40.78	0.13		
TARKWA		GDB30_40.78_ns	GDB30	40.78	41.15	0.07		
TARKWA		GDB30_41.15_ns	GDB30	41.15	41.53	0.03		
TARKWA		GDB30_41.53_ns	GDB30	41.53	42.03	2.4		
TARKWA		GDB30_42.03_ns	GDB30	42.03	42.53	0.78		
TARKWA		GDB30_42.53_ns	GDB30	42.53	43.03	0.25		
TARKWA		GDB30_43.03_ns	GDB30	43.03	43.53	0.52		
TARKWA		GDB30_43.53_ns	GDB30	43.53	43.82	0.03		
TARKWA		GDB30_43.82_ns	GDB30	43.82	44.12	0.05		
TARKWA		GDB30_44.12_ns	GDB30	44.12	44.54	0.33		
TARKWA		GDB30_44.54_ns	GDB30	44.54	44.95	0.14		
TARKWA		GDB30_44.95_ns	GDB30	44.95	45.36	0.16		
TARKWA		GDB30_45.36_ns	GDB30	45.36	45.7	1.23		
TARKWA		GDB30_45.7_ns	GDB30	45.7	46.06	0.28		
TARKWA		GDB30_46.06_ns	GDB30	46.06	46.42	0.15		
TARKWA		GDB30_46.42_ns	GDB30	46.42	46.92	2.29		
TARKWA		GDB30_46.92_ns	GDB30	46.92	47.42	2.2		
TARKWA		GDB30_47.42_ns	GDB30	47.42	47.92	1.2		
TARKWA		GDB30_47.92_ns	GDB30	47.92	48.42	0.94		
TARKWA		GDB30_48.42_ns	GDB30	48.42	48.92	1.52		
TARKWA		GDB30_48.92_ns	GDB30	48.92	49.42	0.84		
TARKWA		GDB30_49.42_ns	GDB30	49.42	49.85	0.11		
TARKWA		GDB30_49.85_ns	GDB30	49.85	50.28	0.47		
TARKWA		GDB30_50.28_ns	GDB30	50.28	50.71	0.2		
TARKWA		GDB30_50.71_ns	GDB30	50.71	51.14	0.79		
TARKWA		GDB30_51.14_ns	GDB30	51.14	51.57	0.43		
TARKWA		GDB30_51.57_ns	GDB30	51.57	52	1.08		
TARKWA		GDB30_52_ns	GDB30	52	52.43	0.11		
TARKWA		GDB30_52.43_ns	GDB30	52.43	52.88	0.26		
TARKWA		GDB30_52.88_ns	GDB30	52.88	53.38	3.51		
TARKWA		GDB30_53.38_ns	GDB30	53.38	53.88	1.64		
TARKWA		GDB30_53.88_ns	GDB30	53.88	54.09	0.7		
TARKWA		GDB30_54.09_ns	GDB30	54.09	54.47	2.09		
TARKWA		GDB30_54.47_ns	GDB30	54.47	54.86	0.29		
TARKWA		GDB30_54.86_ns	GDB30	54.86	55.16	1.87		
TARKWA		GDB30_55.16_ns	GDB30	55.16	55.46	7.29		
TARKWA		GDB30_55.46_ns	GDB30	55.46	55.96	1.58		
TARKWA		GDB30_55.96_ns	GDB30	55.96	56.46	2.74		
TARKWA		GDB30_56.46_ns	GDB30	56.46	56.96	4.8		
TARKWA		GDB30_56.96_ns	GDB30	56.96	57.46	1.36		
TARKWA		GDB30_57.46_ns	GDB30	57.46	57.96	0.73		
TARKWA		GDB30_57.96_ns	GDB30	57.96	58.46	1.92		
TARKWA		GDB30_58.46_ns	GDB30	58.46	58.96	1.12		
TARKWA		GDB30_58.96_ns	GDB30	58.96	59.46	1.32		
TARKWA		GDB30_59.46_ns	GDB30	59.46	59.96	1.26		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB30_59.96_ns	GDB30	59.96	60.46	3.8		
TARKWA		GDB30_60.46_ns	GDB30	60.46	60.75	0.46		
TARKWA		GDB30_60.75_ns	GDB30	60.75	61.04	0.24		
TARKWA		GDB30_61.04_ns	GDB30	61.04	61.35	0.16		
TARKWA		GDB30_61.35_ns	GDB30	61.35	61.66	1.07		
TARKWA		GDB30_61.66_ns	GDB30	61.66	62.22	0.03		
TARKWA		GDB30_62.22_ns	GDB30	62.22	62.68	0.05		
TARKWA		GDB30_62.68_ns	GDB30	62.68	63.14	0.05		
TARKWA		GDB30_63.14_ns	GDB30	63.14	63.6	0.02		
TARKWA		GDB30_63.6_ns	GDB30	63.6	64.06	0.07		
TARKWA		GDB30_64.06_ns	GDB30	64.06	64.52	0.08		
TARKWA		GDB30_64.52_ns	GDB30	64.52	64.87	0.03		
TARKWA		GDB30_64.87_ns	GDB30	64.87	65.23	0.02		
TARKWA		GDB30_65.23_ns	GDB30	65.23	65.59	0.1		
TARKWA		GDB30_65.59_ns	GDB30	65.59	65.95	0.18		
TARKWA		GDB30_65.95_ns	GDB30	65.95	66.31	0.04		
TARKWA		GDB30_66.31_ns	GDB30	66.31	66.66	0.11		
TARKWA		GDB30_66.66_ns	GDB30	66.66	66.99	0.03		
TARKWA		GDB30_66.99_ns	GDB30	66.99	67.33	0.06		
TARKWA		GDB30_67.33_ns	GDB30	67.33	67.67	0.07		
TARKWA		GDB30_67.67_ns	GDB30	67.67	68	0.02		
TARKWA		GDB30_68_ns	GDB30	68	68.34	0.03		
TARKWA		GDB30_68.34_ns	GDB30	68.34	68.68	0.01		
TARKWA		GDB30_68.68_ns	GDB30	68.68	69.17	0.04		
TARKWA		GDB30_69.17_ns	GDB30	69.17	69.46	0.04		
TARKWA		GDB30_69.46_ns	GDB30	69.46	69.96	2.56		
TARKWA		GDB30_69.96_ns	GDB30	69.96	70.46	0.64		
TARKWA		GDB30_70.46_ns	GDB30	70.46	70.96	0.36		
TARKWA		GDB30_70.96_ns	GDB30	70.96	71.46	0.25		
TARKWA		GDB30_71.46_ns	GDB30	71.46	71.96	0.28		
TARKWA		GDB30_71.96_ns	GDB30	71.96	72.46	0.22		
TARKWA		GDB30_72.46_ns	GDB30	72.46	72.77	0.05		
TARKWA		GDB30_72.77_ns	GDB30	72.77	73.27	5.66		
TARKWA		GDB30_73.27_ns	GDB30	73.27	73.77	11.68		
TARKWA		GDB30_73.77_ns	GDB30	73.77	74.27	1.84		
TARKWA		GDB30_74.27_ns	GDB30	74.27	74.77	5.26		
TARKWA		GDB30_74.77_ns	GDB30	74.77	75.27	2.64		
TARKWA		GDB30_75.27_ns	GDB30	75.27	75.77	2.92		
TARKWA		GDB30_75.77_ns	GDB30	75.77	76.27	1.22		
TARKWA		GDB30_76.27_ns	GDB30	76.27	76.77	4.13		
TARKWA		GDB30_76.77_ns	GDB30	76.77	77.27	0.24		
TARKWA		GDB30_77.27_ns	GDB30	77.27	77.77	0.1		
TARKWA		GDB30_77.77_ns	GDB30	77.77	78.27	0.54		
TARKWA		GDB30_78.27_ns	GDB30	78.27	78.77	0.26		
TARKWA		GDB30_78.77_ns	GDB30	78.77	79.27	0.78		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB30_79.27_ns	GDB30	79.27	79.77	1.28		
TARKWA		GDB30_79.77_ns	GDB30	79.77	80.27	0.38		
TARKWA		GDB30_80.27_ns	GDB30	80.27	80.77	0.01		
TARKWA		GDB30_80.77_ns	GDB30	80.77	81.27	0.02		
TARKWA		GDB30_81.27_ns	GDB30	81.27	82	0.04		
TARKWA		GDB30_82_ns	GDB30	82	83	0.03		
TARKWA		GDB30_83_ns	GDB30	83	84	0.02		
TARKWA		GDB31_83_ns	GDB31	83	84	0.02		
TARKWA		GDB31_84_ns	GDB31	84	85	0.02		
TARKWA		GDB31_85_ns	GDB31	85	86	0.02		
TARKWA		GDB31_86_ns	GDB31	86	87	0.02		
TARKWA		GDB31_87_ns	GDB31	87	88	0.02		
TARKWA		GDB31_88_ns	GDB31	88	89	0.02		
TARKWA		GDB31_89_ns	GDB31	89	90	0.01		
TARKWA		GDB31_90_ns	GDB31	90	91	0.01		
TARKWA		GDB31_91_ns	GDB31	91	92	0.01		
TARKWA		GDB31_92_ns	GDB31	92	93	0.03		
TARKWA		GDB31_93_ns	GDB31	93	93.95	0.01		
TARKWA		GDB31_93.95_ns	GDB31	93.95	94.46	0.11		
TARKWA		GDB31_94.46_ns	GDB31	94.46	94.97	0.01		
TARKWA		GDB31_94.97_ns	GDB31	94.97	95.47	0.01		
TARKWA		GDB31_95.47_ns	GDB31	95.47	95.97	0.05		
TARKWA		GDB31_95.97_ns	GDB31	95.97	96.47	0.03		
TARKWA		GDB31_96.47_ns	GDB31	96.47	96.97	0.08		
TARKWA		GDB31_96.97_ns	GDB31	96.97	97.45	0.85		
TARKWA		GDB31_97.45_ns	GDB31	97.45	97.92	0.08		
TARKWA		GDB31_97.92_ns	GDB31	97.92	98.39	0.06		
TARKWA		GDB31_98.39_ns	GDB31	98.39	98.87	0.02		
TARKWA		GDB31_98.87_ns	GDB31	98.87	99.37	1.85		
TARKWA		GDB31_99.37_ns	GDB31	99.37	99.87	0.42		
TARKWA		GDB31_99.87_ns	GDB31	99.87	100.37	0.42		
TARKWA		GDB31_100.37_ns	GDB31	100.37	100.87	1.94		
TARKWA		GDB31_100.87_ns	GDB31	100.87	101.37	1.1		
TARKWA		GDB31_101.37_ns	GDB31	101.37	101.87	1.38		
TARKWA		GDB31_101.87_ns	GDB31	101.87	102.37	1.14		
TARKWA		GDB31_102.37_ns	GDB31	102.37	102.87	0.18		
TARKWA		GDB31_102.87_ns	GDB31	102.87	103.22	0.05		
TARKWA		GDB31_103.22_ns	GDB31	103.22	103.56	0.16		
TARKWA		GDB31_103.56_ns	GDB31	103.56	104.09	0.07		
TARKWA		GDB31_104.09_ns	GDB31	104.09	104.62	0.06		
TARKWA		GDB31_104.62_ns	GDB31	104.62	105.06	0.45		
TARKWA		GDB31_105.06_ns	GDB31	105.06	105.57	0.42		
TARKWA		GDB31_105.57_ns	GDB31	105.57	105.89	0.51		
TARKWA		GDB31_105.89_ns	GDB31	105.89	106.21	0.24		
TARKWA		GDB31_106.21_ns	GDB31	106.21	106.71	0.32		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB31_106.71_ns	GDB31	106.71	107.21	0.56		
TARKWA		GDB31_107.21_ns	GDB31	107.21	107.62	0.34		
TARKWA		GDB31_107.62_ns	GDB31	107.62	107.97	0.11		
TARKWA		GDB31_107.97_ns	GDB31	107.97	108.22	0.19		
TARKWA		GDB31_108.22_ns	GDB31	108.22	108.5	1.69		
TARKWA		GDB31_108.5_ns	GDB31	108.5	108.81	0.51		
TARKWA		GDB31_108.81_ns	GDB31	108.81	109.13	0.9		
TARKWA		GDB31_109.13_ns	GDB31	109.13	109.38	0.12		
TARKWA		GDB31_109.38_ns	GDB31	109.38	109.69	0.26		
TARKWA		GDB31_109.69_ns	GDB31	109.69	109.99	0.04		
TARKWA		GDB31_109.99_ns	GDB31	109.99	110.29	0.18		
TARKWA		GDB31_110.29_ns	GDB31	110.29	110.79	0.28		
TARKWA		GDB31_110.79_ns	GDB31	110.79	111.29	1.29		
TARKWA		GDB31_111.29_ns	GDB31	111.29	111.79	0.98		
TARKWA		GDB31_111.79_ns	GDB31	111.79	112.29	2.59		
TARKWA		GDB31_112.29_ns	GDB31	112.29	112.79	1.44		
TARKWA		GDB31_112.79_ns	GDB31	112.79	113.29	0.54		
TARKWA		GDB31_113.29_ns	GDB31	113.29	113.79	0.5		
TARKWA		GDB31_113.79_ns	GDB31	113.79	114.01	0.1		
TARKWA		GDB31_114.01_ns	GDB31	114.01	114.34	0.15		
TARKWA		GDB31_114.34_ns	GDB31	114.34	114.54	0.67		
TARKWA		GDB31_114.54_ns	GDB31	114.54	115.04	0.86		
TARKWA		GDB31_115.04_ns	GDB31	115.04	115.54	0.9		
TARKWA		GDB31_115.54_ns	GDB31	115.54	116.04	0.26		
TARKWA		GDB31_116.04_ns	GDB31	116.04	116.54	3.8		
TARKWA		GDB31_116.54_ns	GDB31	116.54	117.04	1.56		
TARKWA		GDB31_117.04_ns	GDB31	117.04	117.54	3.95		
TARKWA		GDB31_117.54_ns	GDB31	117.54	118.04	0.28		
TARKWA		GDB31_118.04_ns	GDB31	118.04	118.54	0.3		
TARKWA		GDB31_118.54_ns	GDB31	118.54	118.93	0.1		
TARKWA		GDB31_118.93_ns	GDB31	118.93	119.33	0.14		
TARKWA		GDB31_119.33_ns	GDB31	119.33	119.73	0.1		
TARKWA		GDB31_119.73_ns	GDB31	119.73	120	0.1		
TARKWA		GDB31_120_ns	GDB31	120	120.4	0.17		
TARKWA		GDB31_120.4_ns	GDB31	120.4	120.81	0.76		
TARKWA		GDB31_120.81_ns	GDB31	120.81	121.22	0.04		
TARKWA		GDB31_121.22_ns	GDB31	121.22	121.63	0.12		
TARKWA		GDB31_121.63_ns	GDB31	121.63	122.04	0.02		
TARKWA		GDB31_122.04_ns	GDB31	122.04	122.56	0.05		
TARKWA		GDB31_122.56_ns	GDB31	122.56	122.95	0.12		
TARKWA		GDB31_122.95_ns	GDB31	122.95	123.35	0.12		
TARKWA		GDB31_123.35_ns	GDB31	123.35	123.75	0.04		
TARKWA		GDB31_123.75_ns	GDB31	123.75	124.24	0.03		
TARKWA		GDB31_124.24_ns	GDB31	124.24	124.46	1.89		
TARKWA		GDB31_124.46_ns	GDB31	124.46	124.84	0.18		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		GDB31_124.84_ns	GDB31	124.84	125.09	0.94		
TARKWA		GDB31_125.09_ns	GDB31	125.09	125.59	5.78		
TARKWA		GDB31_125.59_ns	GDB31	125.59	126.09	6.12		
TARKWA		GDB31_126.09_ns	GDB31	126.09	126.59	0.42		
TARKWA		GDB31_126.59_ns	GDB31	126.59	127.09	0.55		
TARKWA		GDB31_127.09_ns	GDB31	127.09	127.59	0.13		
TARKWA		GDB31_127.59_ns	GDB31	127.59	127.8	0.06		
TARKWA		GDB31_127.8_ns	GDB31	127.8	128.31	0.23		
TARKWA		GDB31_128.31_ns	GDB31	128.31	128.52	0.04		
TARKWA		GDB31_128.52_ns	GDB31	128.52	128.82	0.54		
TARKWA		GDB31_128.82_ns	GDB31	128.82	129.13	2.93		
TARKWA		GDB31_129.13_ns	GDB31	129.13	129.46	1.63		
TARKWA		GDB31_129.46_ns	GDB31	129.46	129.81	1.55		
TARKWA		GDB31_129.81_ns	GDB31	129.81	130.27	0.02		
TARKWA		GDB31_130.27_ns	GDB31	130.27	130.77	0.01		
TARKWA		GDB31_130.77_ns	GDB31	130.77	131.27	0.01		
TARKWA		GDB31_131.27_ns	GDB31	131.27	131.77	0.01		
TARKWA		GDB31_131.77_ns	GDB31	131.77	132.27	0.01		
TARKWA		GDB31_132.27_ns	GDB31	132.27	132.77	0.01		
TARKWA		GDB31_132.77_ns	GDB31	132.77	133.27	0.01		
TARKWA		GDB31_133.27_ns	GDB31	133.27	133.77	0.01		
TARKWA		GDB31_133.77_ns	GDB31	133.77	134.27	0.11		
TARKWA		GDB31_134.27_ns	GDB31	134.27	135	0.01		
TARKWA		GDB31_135_ns	GDB31	135	136	0.01		
TARKWA		GDB31_136_ns	GDB31	136	137	0.01		
TARKWA		GDB31_137_ns	GDB31	137	138	0.02		
TARKWA		GDB31_138_ns	GDB31	138	139	0.01		
TARKWA		GDB31_139_ns	GDB31	139	140	0.01		
TARKWA		GDB31_140_ns	GDB31	140	141	0.01		
TARKWA		GDB31_141_ns	GDB31	141	142	0.01		
TARKWA		GDB31_142_ns	GDB31	142	143	0.01		
TARKWA		GDB31_143_ns	GDB31	143	144	0.01		
TARKWA		A85792	GDB32	1.55	2.58	0.05		
TARKWA		A85793	GDB32	2.58	3.58	0.03		
TARKWA		A85794	GDB32	3.58	3.8	0.07		
TARKWA		A85795	GDB32	3.8	4.02	0.06		
TARKWA		A85796	GDB32	4.02	4.28	0.12		
TARKWA		A85797	GDB32	4.28	4.65	0.06		
TARKWA		A85798	GDB32	4.65	5.02	0.08		
TARKWA		A85799	GDB32	5.02	5.25	0.12		
TARKWA		A85800	GDB32	5.25	5.47	0.07		
TARKWA		A85801	GDB32	5.47	5.69	0.06		
TARKWA		A85802	GDB32	5.69	5.91	0.21		
TARKWA		A85803	GDB32	5.91	6.31	0.2		
TARKWA		A85804	GDB32	6.31	6.71	0.11		

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA	A85805	GDB32	6.71	6.96	0.1			
TARKWA	A85806	GDB32	6.96	7.34	0.11			
TARKWA	A85807	GDB32	7.34	7.65	0.05			
TARKWA	A85808	GDB32	7.65	7.96	0.06			
TARKWA	A85809	GDB32	7.96	8.36	0.05			
TARKWA	A85810	GDB32	8.36	8.76	0.03			
TARKWA	A85811	GDB32	8.76	9.16	0.05			
TARKWA	A85812	GDB32	9.16	9.37	1.65			
TARKWA	A85813	GDB32	9.37	9.73	0.14			
TARKWA	A85814	GDB32	9.73	10.08	0.12			
TARKWA	A85815	GDB32	10.08	10.3	1.96			
TARKWA	A85816	GDB32	10.3	10.6	0.2			
TARKWA	A85817	GDB32	10.6	10.83	0.42			
TARKWA	A85818	GDB32	10.83	11.03	0.24			
TARKWA	A85819	GDB32	11.03	11.33	5.12			
TARKWA	A85820	GDB32	11.33	11.63	3.71			
TARKWA	A85821	GDB32	11.63	11.92	12			
TARKWA	A85822	GDB32	11.92	12.21	2.76			
TARKWA	A85823	GDB32	12.21	12.5	0.61			
TARKWA	A85824	GDB32	12.5	12.7	0.26			
TARKWA	A85825	GDB32	12.7	12.96	0.56			
TARKWA	A85826	GDB32	12.96	13.23	0.17			
TARKWA	A85827	GDB32	13.23	13.43	0.07			
TARKWA	A85828	GDB32	13.43	13.69	0.41			
TARKWA	A85829	GDB32	13.69	14	0.06			
TARKWA	A85830	GDB32	14	14.2	2.05			
TARKWA	A85831	GDB32	14.2	14.45	0.13			
TARKWA	A85832	GDB32	14.45	14.71	0.07			
TARKWA	A85833	GDB32	14.71	15.04	0.28			
TARKWA	A85834	GDB32	15.04	15.32	0.95			
TARKWA	A85835	GDB32	15.32	15.59	3.15			
TARKWA	A85836	GDB32	15.59	15.92	0.54			
TARKWA	A85837	GDB32	15.92	16.23	0.11			
TARKWA	A85838	GDB32	16.23	16.54	0.4			
TARKWA	A85839	GDB32	16.54	16.85	0.14			
TARKWA	A85840	GDB32	16.85	17.11	7.26			
TARKWA	A85841	GDB32	17.11	17.38	11.6			
TARKWA	A85842	GDB32	17.38	17.72	4.52			
TARKWA	A85843	GDB32	17.72	18.07	3.61			
TARKWA	A85844	GDB32	18.07	18.3	4.96			
TARKWA	A85845	GDB32	18.3	18.65	2.1			
TARKWA	A85846	GDB32	18.65	18.9	7.36			
TARKWA	A85847	GDB32	18.9	19.15	1.52			
TARKWA	A85848	GDB32	19.15	19.42	0.27			
TARKWA	A85849	GDB32	19.42	19.69	0.1			

collar								
DataSet	hole_id	hole_type	max_depth	X	y	z	area	hole_path
TARKWA		A85850	GDB32	19.69	19.89	0.1		
TARKWA		A85851	GDB32	19.89	20.23	1.5		
TARKWA		A85852	GDB32	20.23	20.47	2.78		
TARKWA		A85853	GDB32	20.47	20.8	8.22		
TARKWA		A85854	GDB32	20.8	21	2.91		
TARKWA		A85855	GDB32	21	21.3	1.67		
TARKWA		A85856	GDB32	21.3	21.5	2.77		
TARKWA		GDB33_0_ns	GDB33	0	0.36	0.13		
TARKWA		GDB33_0.36_ns	GDB33	0.36	0.73	0.11		
TARKWA		GDB33_0.73_ns	GDB33	0.73	0.94	0.19		
TARKWA		GDB33_0.94_ns	GDB33	0.94	1.36	0.03		
TARKWA		GDB33_1.36_ns	GDB33	1.36	1.57	0.04		
TARKWA		GDB33_1.57_ns	GDB33	1.57	1.95	0.07		
TARKWA		GDB33_1.95_ns	GDB33	1.95	2.16	0.19		
TARKWA		GDB33_2.16_ns	GDB33	2.16	2.66	0.06		
TARKWA		GDB33_2.66_ns	GDB33	2.66	3.16	0.07		
TARKWA		GDB33_3.16_ns	GDB33	3.16	3.41	0.04		
TARKWA		GDB33_3.41_ns	GDB33	3.41	3.88	0.05		
TARKWA		GDB33_3.88_ns	GDB33	3.88	4.36	0.07		
TARKWA		GDB33_4.36_ns	GDB33	4.36	4.56	0.04		
TARKWA		GDB33_4.56_ns	GDB33	4.56	4.82	0.07		
TARKWA		GDB33_4.82_ns	GDB33	4.82	5.03	0.2		
TARKWA		GDB33_5.03_ns	GDB33	5.03	5.25	0.35		
TARKWA		GDB33_5.25_ns	GDB33	5.25	5.79	0.25		
TARKWA		GDB33_5.79_ns	GDB33	5.79	6.47	0.03		