

30 September 2014

Manager Announcements
Company Announcements Office
Australian Securities Exchange
4th Floor
20 Bridge Street
SYDNEY NSW 2000

**Dear Sirs** 

Mechanical Clamshell Grab Mining Feasibility Study, Probable Ore Reserve Estimate and Mineral Resource Estimate Update.

The Directors are pleased to announce that Merlin Diamonds Ltd ("Merlin" or "the Company") has completed a Feasibility Study on Mechanical Clamshell Mining at the Merlin Diamond Mine in the Northern Territory, Australia. Included in the Feasibility Study ("FS") is an updated Probable Ore Reserve estimate. Merlin has also updated its Mineral Resource estimate.

This announcement details the results of the FS, the Probable Ore Reserve estimate and the Mineral Resource estimate and material changes since the previous estimates which were last updated in 2011. The below information is reported in compliance with 2012 JORC Code guidelines by a Competent Person as defined by the JORC Code.

#### **PROJECT HIGHLIGHTS**

Table 1 below summarises the results of the FS and updated Mineral Resource and Ore Reserve estimates:

Table 1: Summary results of the Feasibility Study, Ore Reserve and Mineral Resource estimates

METRIC	RESULT <sup>1</sup>
Net Present Value at 8% discount rate	\$102.2 million
Internal Rate of Return	52.7%
Life of Mine Total Net Cash (undiscounted)	\$132.9 million
Payback Period	4 months
Maximum Negative Cash Position	\$4.23 million
Probable Ore Reserve	4Mt @ 15cpht for 0.6Mcts
Life of Mine	11 years
<sup>2</sup> Indicated Mineral Resource	13.4Mt @ 17cpht for 2.3Mcts
Inferred Mineral Resource	14.4Mt @ 14cpht for 2.0Mcts

<sup>1.</sup> Mt = million tonnes, cpht = carats of diamonds per hundred tonnes, Mcts = millions of carats of diamonds.

The above Mineral Resource and Ore Reserves estimates are effective from 30 September 2014 and have been reported in accordance with the 2012 JORC Code and are based on documentation prepared by a Competent Person as defined by the JORC Code. The Competent Person compliance statements can be found in the relevant sections below on Mineral Resources and Ore Reserves. Competent Person Consent Forms for the above estimates can be found in Appendix A.

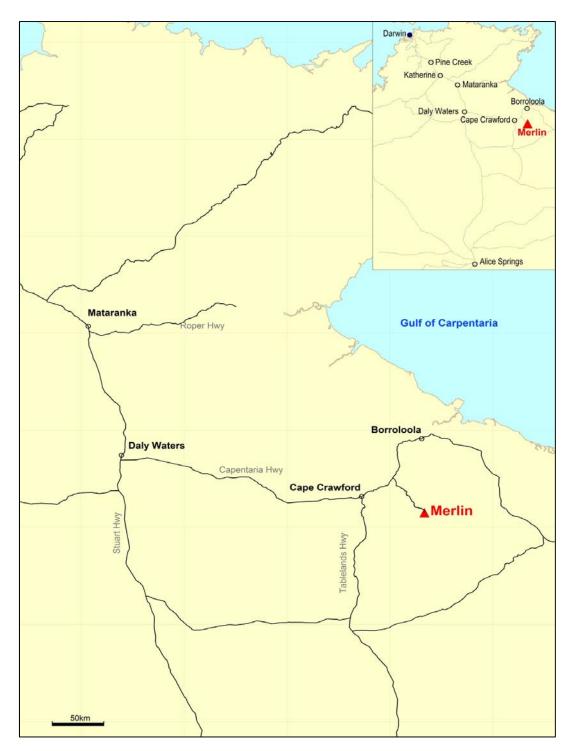
#### **INTRODUCTION**

Merlin wholly owns the Merlin Diamond Mine located near Borroloola, Northern Territory, Australia (Figure 1 and Figure 2). There are 13 known diamond-bearing kimberlite pipe vents on the Merlin mine lease (MLN 1154). Ten of the kimberlite pipe vents have been previously mined by Ashton Mining Ltd ("Ashton") and RioTinto Ltd ("Rio") via nine open pits.

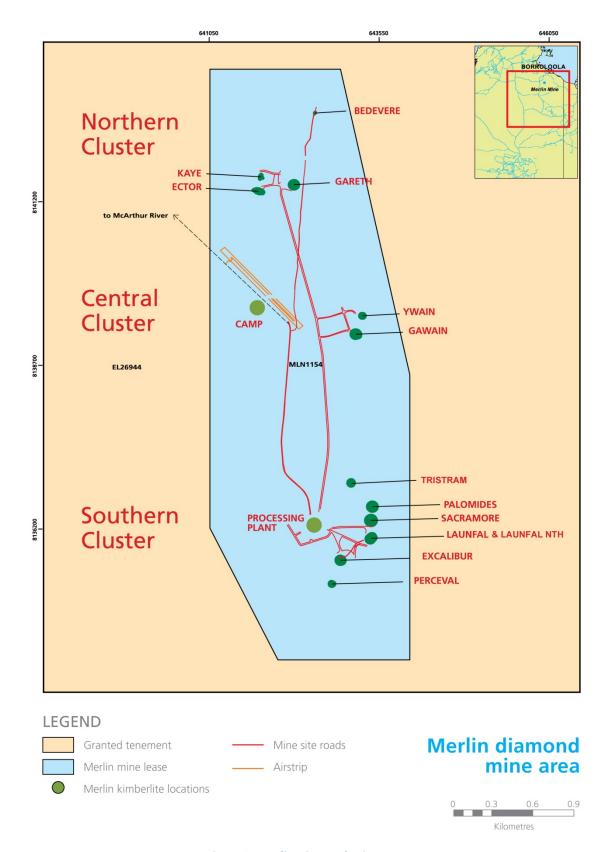
Ashton commenced trial mining operations in 1998. Rio completed a takeover of Ashton in 2000 and continued the trial mining until 2003. During the 5 years of trial mining operations over 2.2 million tonnes were processed with 507,000 carats of diamonds recovered. Rio's mining records and diamond sales data from this period has enabled Merlin to compile detailed and reliable grade and value models for the kimberlite pipes assessed in the FS.

The area is highly prospective for diamond-bearing kimberlite pipes and Merlin continues to undertake exploration on the Merlin mine lease and adjacent tenements. Merlin has over 80 targets identified through geophysical survey and diamond indicator mineral anomalies in the Merlin mine area.

<sup>2.</sup> The Indicated Mineral Resource estimate is inclusive of the Probable Ore Reserve estimate. The Probable Ore Reserve is not additional material to the Mineral Resources.



**Figure 1: Merlin Diamond Mine Location** 



**Figure 2: Merlin Diamond Mine Lease** 

Merlin completed a hydraulic borehole mining ("HBM") trial at its Merlin Project in the Northern Territory, Australia in September 2013. The trial achieved success in some areas however production rates required were not achieved and it was found that the HBM system required further optimising to guarantee maximum recovery and full utilisation of the processing plant capabilities. The downhole hydraulic jetting tool was proven to effectively cut the weathered kimberlite at depth and was able to produce diamond bearing ore suitable for lifting via the mining rods. The hydraulic lifting system was proven to lift material to the surface of the pit and was able to deliver ore to the shaker screen located on the ground surface adjacent to the pit, albeit not at economically viable production rates.

Following the limited success of the HBM trial, hydraulic and computational fluid dynamics engineers were consulted regarding the efficacy of the HBM technique. During this time the Company reviewed previously identified alternative mining methods that potentially have the ability to effectively mine the Merlin ore body with the lowest up-front capital expenditure requirements at an economically sustainable level. It was found that although significant potential exists for future use of the HBM system at the Merlin Project, other alternative methods could potentially provide a quicker path to restarting mining operations with lower upfront capital costs. The previously identified alternative mining methods investigated were:

- ➤ A hydrofraise a machine with rotating cutters and suction slurry line to recover excavated material. This machinery would be suspended from a crane erected on a barge afloat on the pit lakes.
- A weighted hydraulic clamshell grab or a mechanical clamshell grab (dredging grab) this machinery would also be suspended from a crane erected on a barge afloat on the pit lakes.
- ➤ Large diameter auger drilling and large diameter reverse circulation drilling.

Preliminary costings and submissions from three ground engineering contractors presented the following challenges:

- ➤ Heavy hydraulic grabs requiring large cranes and large drill rigs needed for large diameter augers presented very costly mobilisation and demobilisation costs with the potential for access road upgrades (i.e. high capital)
- ➤ Large cranes and drill rigs with vehicle masses of 110 to 170 tonnes and tall masts/booms require large barges to provide a stable working platform
- > The hydraulic grabs and large diameter augers are designed for diaphragm walls and piles respectively and hence the payloads are small for each cycle resulting in relatively low production rates per shift (i.e. high \$ per tonne)

Mechanical clamshell grabs or dredging grabs however, typically used in marine environments for clearing channels and preparing foundations for marine structures, presented an attractive option. The dredging grabs are similar to the weighted hydraulic grabs adopted for ground improvement however the weight to volume ratio is less requiring less cranage and typically the grab has a mechanical closing mechanism rather than hydraulic.

Merlin has been in discussions with several dredging contractors to develop a clamshell grab mining technique for mining at Merlin. This mining method has been assessed with the completion of a full

FS. The FS has estimated a new Probable Ore Reserve based on the mechanical clamshell grab mining methodology.

#### **PROJECT UPSIDE**

A mechanical clamshell grab mining methodology has been adopted for the FS which mines 0.6 million carats out of the total 2.3 million carats in the Indicated category of the Mineral Resource. A further 2.0 million carats exist in the Inferred category of the Mineral Resource. The clamshell grab methodology was chosen due to its low upfront capital requirement and low operating costs as compared to other mining methods. Other mining methods such as HBM, open cut mining and underground mining could potentially access the remaining resource however further studies (outside the scope of the 2014 FS) are required to ascertain the ability of such methods to economically extend the current mine life.

The September 2013 HBM trial succeeded in some areas however the continuous production rates required were not achieved. Merlin personnel are of the opinion that further engineering work on the HBM system may improve the mining rates and allow access to deeper portions of the weathered kimberlite Mineral Resource. This will be assessed once positive cashflow from the clamshell operation has been achieved.

Future diamond prices and targeted marketing of Merlin's cognac and champagne coloured diamonds could warrant detailed studies on the use of open cut mining at the larger (by surface area and volume) kimberlite pipes such Palomides, Kaye and Ector.

The kimberlite pipes in Merlin's northern cluster, Gareth, Kaye and Ector, also have a higher proportion of champagne and cognac diamonds at around 60 percent, approximately 35 percent being white diamonds and the remaining low percentage as coloured stones. Any increase in price of the 'brown' diamonds would certainly warrant a reassessment of the mining method to potentially access a greater portion of the remaining Mineral Resource.

Some analysts believe brown diamonds will see an uplift in price once Rio Tinto's Argyle mine shuts down. An article by Diamond Investing News titled "Brown Diamonds Set to be the Next Big Thing" (McLeod, 2013) discusses the views of Colin Ferguson, the CEO of Rare Investments, a Vancouver based rare gem and coloured diamond dealer. The following is an excerpt from that article:

"....the key thing for investors to understand is that brown diamonds are currently the only coloured diamond selling for less than white diamonds. However, that will not always be the case. In fact, Ferguson believes that in about five years, brown diamonds will dramatically increase in price.

The catalyst for that increase will be the 2018 closure of Rio Tinto's Australia-based Argyle diamond mine, said Ferguson. Argyle produces white, champagne and pink diamonds, and according to Ferguson is the biggest diamond producer by volume, supplying nine out of 10 of the world's pink diamonds and the "vast majority" of brown diamonds. That means when it closes, a significant amount of those diamonds will be removed from the market. And, Ferguson emphasized, the fact that Rio Tinto is shutting down the mine does not mean another company will be able to pick up where it left off — it is closing because there will be no more diamonds left to extract.

Though this significant decline in supply is still a ways off, demand for brown diamonds is already on the rise. Ferguson noted that currently about US\$5 billion worth of champagne and cognac diamond jewellery is sold per year when not long ago the industry was worth nothing at all. A number of factors, including increasing demand from India and China and celebrity uptake, have driven this interest and are expected to continue to do so.

When these two factors — the closure of the Argyle mine and increased demand — converge, the likely result will be a substantial spike in prices."

The exploration upside on MDL's mining lease and surrounding tenements is significant with over 70 potential kimberlite targets identified through geophysical survey and diamond indicator mineral anomalies.

Rio Tinto's 1997 feasibility study on the Merlin Diamond Mine made the following comments in regard to the potential of discovering more small pipes, large pipes and totally new kimberlite fields:

"Small pipes, such as Ywain, may be fairly common in the field....."

"There is some potential for significantly larger pipes...."

"Within 100km radius of Merlin, there are seven areas in which both indicators, microdiamonds and in some instances commercial sized diamonds have been recorded. A small kimberlite pipe was found at one location, in a structural position similar to the pipes at Merlin. This evidence indicates that the Merlin field is part of a broader kimberlite province."

"These factors (cretaceous cover, poor preservation of indicator minerals) while inhibiting the exploration effort, generally increase the possibility of other kimberlite fields and larger pipes to be present in the province."

Evidence of a new kimberlite field is highlighted in Legend International's ground "the Abner Range Project" located 50km to the west of Merlin which has a previously discovered diamondiferous kimberlite pipe and numerous unresolved diamond indicator anomalies.

Merlin believes that the data density of current geophysical surveys and diamond indicator sampling over the Merlin plateau could easily have missed pipes the size of Ywain and Gawain, Merlin's highest grade kimberlite pipes. A portion of future cashflow from the currently proposed mining operation will be reinvested into discovering these kimberlite pipes.

# **2014 MECHANICAL CLAMSHELL GRAB FEASIBILITY STUDY**

A FS, as defined by the 2012 JORC Code, was conducted to assess the technical and economic feasibility of using mechanical clamshell grab mining and the existing diamond recovery plant at the Merlin Diamond Mine to recover diamonds contained within Merlin's Global Indicated Mineral Resource.

The technical feasibility of the mechanical clamshell mining method has been assessed using geotechnical and physical parameters of both the mining method and the Global Indicated Mineral Resource. Modifying factors for the mechanical clamshell mining method have been considered in the development of mine plans for a 'recoverable' Mineral Resource from the Global Indicated

Mineral Resource. The ore considered technically recoverable (Recoverable Mineral Resource) was assessed with a detailed financial model to determine the economic viability of the Recoverable Mineral Resource which formed the Probable Ore Reserve estimate.

The FS assessed the background site details, existing infrastructure, geological and geotechnical parameters, mechanical clamshell grab mining methodology, the proposed processing plant upgrade, a diamond valuation model, appropriate modifying factors, mine planning, a Recoverable Mineral Resource, financial evaluation and culminated in a Probable Ore Reserve estimate.

#### **FEASIBILITY STUDY KEY ASSUMPTIONS**

#### **Project Infrastructure**

Existing infrastructure allows for an immediate restart of mining operations at the Merlin Diamond Mine. Previous mining operations by Ashton in 1998 and Rio in 2000 created much of the mine infrastructure that currently exists. The original plant was dismantled in 2003 by Rio and replaced in 2005 by Striker Resources Ltd with a smaller scale processing plant. This plant was successfully recommissioned by Merlin in October 2013.

Access into the Merlin Diamond Mine can be via road. It is approximately 1,000km from Darwin down the Stuart Hwy, with an east turnoff along the Carpentaria Hwy. The final 60km is along a gravel road that becomes impassable during heavy wet season rains due to the crossings of the McArthur River and the Glyde River. Wet season pre-planning for fuel and other consumables is required during the November-February period.

The Merlin Diamond Mine is serviced by a private airfield which has a north-west to south-east orientation and was purpose built for the previous mining operations. Merlin's previous use of light aircraft with seating capacities of <10 persons would remain the principal mode of FIFO transport.

The airstrip has been certified by CareFlight for day and night emergency evacuation.

The Macarthur River Mine (MRM) is serviced daily by AirNorth charters from Darwin and is a fully sealed (small) domestic airport. In the event of inaccessibility to the Merlin airstrip or ad-hoc flight requirements, the MRM charter flight is used. This is a 60km road journey, and as such is inaccessible during the wet season.

At the accommodation village there are a total of:

- 30 ensuited rooms
- 24 Single Person Quarters with associated ablution block/laundry
- ➤ An exploration office
- A mining office
- ➤ A contractors office
- A wet mess and dining facility

There are sufficient facilities at the Merlin site to accommodate the restart of operations. A recent refurbishment and upgrade to the site has made the village immediately habitable.

The Merlin Diamond Mine has sufficient water supply sourced from local water bores and has adequate waste water treatment facilities and waste disposal facilities.

Power generation for the village and processing plant is from onsite diesel powered generators and communications is via a satellite service provider.

Stores, workshop and security infrastructure is also in place.

# Mining Method

A two rope (cable) 5m³ mechanical clamshell grab (Figure 3) is proposed to be used to mine material from the flooded existing open pits of Ywain, Gwain, Excalibur, Palomides and Launfal with a 10m³ mechanical clamshell grab proposed to be used at the flooded pits of Gareth, Kaye and Ector. The clamshell grab will be suspended from a crane or gantry system affixed to a barge floating on the water surface of the flooded pits.

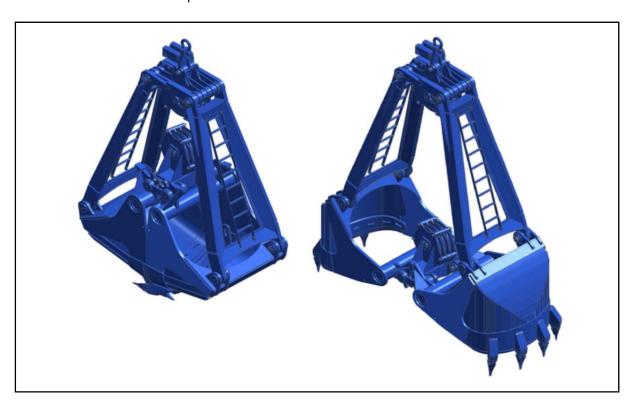


Figure 3: Two rope mechanical clamshell grab

A barge such as the one currently floating within the Ywain pit (Figure 4) will be used for affixing the crane or gantry system.



Figure 4: Barge currently floating within the Ywain open pit

A clamshell grab comprises two shells (or yaws) which rotate around a hinge in the lower sheave block which is connected via arms with the upper sheave block. In the simplest arrangement, a hoisting cable from a crane is attached to the clamshell for raising and lowering the device whilst a second crane cable known as the closure cable is attached to the upper and lower sheave blocks to open and close the clamshell. This is referred to as a 2-rope mechanical grab and is depicted in Figure 3.

The excavation process employing clamshell grabs involves the open grab free-falling from the crane through water and on to the material to be dug. The yaws, fitted with Ground Engaging Tools (GET), penetrate vertically into the material to be excavated. The closing cable is engaged which causes the lower sheave block and upper sheave block to come together and as a result the grab closes. In harder material the hoisting cable is kept slack during closing to allow the grab to penetrate deeper.

The most appropriate size of grab for the Merlin diamond mining operation is governed by the size and hoisting speed of a crane which can be readily mobilised and manoeuvred on a floating barge within the open pits and the ability to supply approximately 900 tonnes per day of ore to the Run Of Mine (ROM) Pad to feed the processing plant (assuming a single 12 hour shift per day). This equates to 100 tonnes per hour if 9 hours of productive grab mining per shift is assumed. By conservatively adopting a bulk density for wet kimberlite of 2.1 tonnes per cubic metre this results in the grab's production rate of 48 bank cubic metres per hour.

The optimal grab size to meet processing capacity and likely grab cycle times from a floating crane barge is around 5 cubic metres. A 5m³ clamshell grab has been adopted for the Merlin Diamond Mine with a conservative production rate of 40 bank cubic metres per hour. For the larger and lower grade northern pits of Gareth, Kaye and Ector a 10m³ clamshell has been adopted with a conservative production rate of 80 bank cubic metres per hour.

# **Diamond Valuation Model**

Rough diamonds are valued principally by their clarity, colour, flaws and size. Each diamond-bearing kimberlite pipe at Merlin has varying grade and exhibits different colour and size distributions. Broadly, the Central and Southern cluster of pipes at Merlin have similar colour distributions whilst the Northern cluster is dominated by Cognac and Champagne diamonds. The Central cluster pipes have highest grades followed by the Southern cluster pipes with the Northern cluster pipes being the lowest grade. For rough diamonds less than four carats, the Southern cluster pipes have the highest historical valuation followed by the Central cluster pipes. The Northern cluster pipes have the lowest historical valuation which can be somewhat explained by the historically lower value for cognac and champagne diamonds and high frequency of these stones in these pipes.

Over 500,000 carats were extracted and sold from the Merlin mine between 1999 and 2003 by Ashton Mining and Rio Tinto. Albeit incomplete, Merlin has a library of the historical sales records of diamond parcels from this intense period of activity as well as several valuations and sales completed in later years. This data provides an extensive and robust data set for diamond valuation of future mined parcels.

A comprehensive reconciliation of data was undertaken in 2011 to accompany the 2011 Ore Reserve Estimate. This is the most comprehensive record of reconciled production undertaken at the Merlin Diamond Mine between 1999 and 2003. The data identifies the total carats recovered between 1999 and 2003 for each pipe at Merlin and provides details including the valuation, sale value, colour, quality and size distribution of the diamonds.

The Merlin diamond parcel sales data from 1999 to 2003 was cumulated into annual totals for each pipe. The annual totals displayed average sale prices for the given year for each diamond size fraction.

In December 2006, KPMG published a document entitled *The Global Gems and Jewellery Industry: Vision 2015; Transforming for Growth* which included the rough diamond prices for the preceding decade (1996 to 2005). The KPMG price trends were used to adjust the average price for each diamond size fraction for the given year of Merlin diamond parcel sales to a 2005 value. The percentage increase in price for each given year to 2005 is given in Table 2. For example, the 1999

average sales price for each diamond fraction for Palomides were each adjusted to a 2005 value. Similarly the 2001 average sales price for each diamond fraction for Excalibur were each adjusted to a 2005 value.

Table 2 KPMG Rough Diamond Price Trend (1999 to 2005)

Base Year	Price increase from Base Year to 2005 (%)
1999	38.89
2000	29.32
2001	33.60
2002	29.70
2003	30.08

The trend in diamond prices over the past decade, 2004 to 2013, is reported in *The Global Diamond Annual Report 2013* by Bain & Company. Figure 5 from Bain (2013) shows that rough diamond prices have increased at a compound annual growth rate (CAGR) of 9% over the past decade and at a CAGR of 13% since 2008. The Bain (2013) price trends were used to adjust the 2005 valuations of the historic average sales price for each diamond size fraction constructed using the KPMG price trends. A CAGR of 5% from 2006 to 2008 and a CAGR of 13% from 2009 to 2013 were adopted to adjust the 2005 valuations to 2013 values.

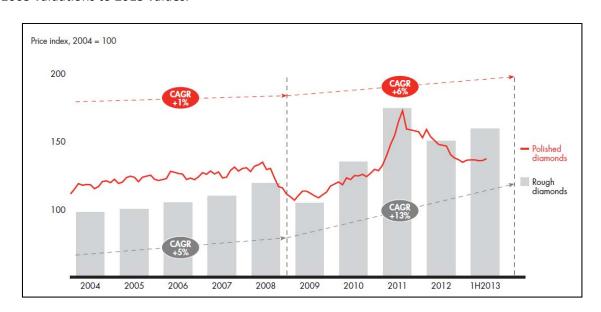


Figure 5: Compound Annual Growth Rate for Diamonds in the last decade (Bain, 2013)

The 2013 valuations were adjusted to 2014 values using a 13 percent CAGR based on Antwerp World Diamond Centre data for the first seven months of 2014.

The 2014 valuations were adjusted to 2015 values by conservatively adopting a CAGR of 9.0 percent based on the CAGR over the past decade from 2004 to 2013 (Bain, 2013). The 2015 valuations have been adopted as the starting values for mechanical clamshell grab mining at Merlin mine in 2015.

The sample size of sales data for diamond size categories larger than 3 carats is very small for all pipes at Merlin. The Northern cluster pipes are predominantly cognac and champagne diamonds which historically garnered lower values than the Central and Southern cluster pipes which are dominated by white diamonds. The 2015 valuations of the Northern cluster pipes for diamond size categories larger than 3 carats were pooled to provide sufficiently large data sets to derive the value distribution. Similarly the 2015 valuations of the Southern and Central cluster pipes for diamond size categories larger than 3 carats were pooled to derive the value distribution for the upper size fractions. The Northern cluster pooled size value distributions in Table 3 were used to represent the upper size fractions in Gareth, Kaye and Ector. The Southern and Central cluster pooled size value distributions in Table 3 were used to represent the upper size fractions in Excalibur, Palomides, Launfal, Ywain and Gawain.

**Table 3 Upper Diamond Size Fraction - 2015 Valuations** 

	2015 Valuation			
Diamond Size	Southern & Central Cluster	Northern Cluster		
	(US\$/ct)	(US\$/ct)		
Spec	\$5,113.26	\$2,678.51		
10cts	\$4,024.50	\$2,249.13		
9cts	\$3,261.57	\$1,634.75		
8cts	\$2,208.53	\$2,100.82		
7cts	\$2,792.95	\$1,165.98		
6cts	\$2,065.80	\$1,890.93		
5cts	\$1,727.36	\$1,058.40		
4cts	\$1,499.56	\$757.44		

The sample size of sales data for diamond size categories of 3 carats and less is sufficiently large for all pipes at Merlin. Accordingly the size value distributions for diamonds in the lower size categories (3 carats and less) were derived from historic sales data for each pipe and are presented in Table 4.

Table 4 2015 Valuations by pipe and size fraction

				2015 Valuati	on (US\$/ct)			
Diamond Size	Ywain	Gawain	Excalibur	Palomides	Launfal	Gareth	Kaye	Ector
Spec	\$5,113.26	\$5,113.26	\$5,113.26	\$5,113.26	\$5,113.26	\$2,678.51	\$2,678.51	\$2,678.51
10cts	\$4,024.50	\$4,024.50	\$4,024.50	\$4,024.50	\$4,024.50	\$2,249.13	\$2,249.13	\$2,249.13
9cts	\$3,261.57	\$3,261.57	\$3,261.57	\$3,261.57	\$3,261.57	\$1,634.75	\$1,634.75	\$1,634.75
8cts	\$2,208.53	\$2,208.53	\$2,208.53	\$2,208.53	\$2,208.53	\$2,100.82	\$2,100.82	\$2,100.82
7cts	\$2,792.95	\$2,792.95	\$2,792.95	\$2,792.95	\$2,792.95	\$1,165.98	\$1,165.98	\$1,165.98
6cts	\$2,065.80	\$2,065.80	\$2,065.80	\$2,065.80	\$2,065.80	\$1,890.93	\$1,890.93	\$1,890.93
5cts	\$1,727.36	\$1,727.36	\$1,727.36	\$1,727.36	\$1,727.36	\$1,058.40	\$1,058.40	\$1,058.40
4cts	\$1,499.56	\$1,499.56	\$1,499.56	\$1,499.56	\$1,499.56	\$757.44	\$757.44	\$757.44
3cts	\$987.97	\$974.11	\$1,257.56	\$1,094.37	\$1,428.41	\$788.49	\$868.77	\$726.19
10-8 gr	\$692.21	\$832.57	\$882.81	\$762.36	\$1,047.79	\$425.47	\$756.77	\$531.47
6 gr	\$451.92	\$534.86	\$579.97	\$590.56	\$707.85	\$307.29	\$397.10	\$370.15
5 gr	\$371.78	\$357.12	\$499.08	\$416.35	\$519.22	\$243.71	\$344.56	\$361.45
4 gr	\$381.57	\$377.77	\$490.69	\$436.38	\$537.83	\$234.05	\$336.68	\$301.35
3 gr	\$200.22	\$199.47	\$300.62	\$248.75	\$319.52	\$136.82	\$218.12	\$195.35
11 DTC	\$135.64	\$141.93	\$177.87	\$158.38	\$193.70	\$87.56	\$145.15	\$130.82
9 DTC	\$114.52	\$117.86	\$141.42	\$115.62	\$143.79	\$65.90	\$107.70	\$93.08
7 DTC	\$84.60	\$79.73	\$105.51	\$86.71	\$100.63	\$50.54	\$87.06	\$72.24
5 DTC	\$60.78	\$63.95	\$74.77	\$52.14	\$70.90	\$33.51	\$45.99	\$48.09
3 DTC	\$33.73	\$33.83	\$34.13	\$34.54	\$34.24	\$31.70	\$34.48	\$32.42
-3 DTC	\$10.22	\$10.25	\$8.96	\$10.31	\$8.36	\$9.53	\$10.18	\$9.71
No. of carats in sales parcels	5,681	3,623	116,195	85,394	30,969	22,529	10,472	5,923

# Recoverable Mineral Resource and Modifying Factors

The basis of the Recoverable Mineral Resource is the weathered portion only of the 2012 JORC Code compliant Global Indicated Mineral Resource described in further detail below and in Appendix B – Table 1 of the 2012 JORC Code. Three dimensional triangular irregular network (TIN) models of the deposits ('wireframes') developed for the Global Indicated Mineral Resource estimate were adopted together with the associated weathering model. The Recoverable Mineral Resource was determined by applying modifying factors to the weathered Global Indicated Mineral Resource estimate.

The modifying factors are described in the following sections. Further details on modifying factors can be found in Appendix B – Table 1 of the 2012 JORC Code.

# Mining Dilution

In a previous Ashton Feasibility Report (AMC, 1997) a half (0.5) metre unrecoverable skin was designed around the edges of the kimberlite pipe. Merlin has adopted this same assumption due to the limitations in selectability of the clamshell grab. The clamshell grab will be operating 100% within kimberlitic ore accordingly no mining dilution is expected. If the 0.5m skin is breached by the clamshell it is expected that the high contrast in rock hardness between the kimberlite ore and the country rock of the sandstone pit walls will also prevent any dilution. Any failure of the surrounding country rock is predicted to be small scale and localised and therefore having a minimal effect on ore dilution. A zero dilution model has been adopted for the Recoverable Mineral Resource estimate.

#### Mining Recovery

The mechanical clamshell grab can only access kimberlite ore that is at or vertically below the existing pit floor which produces a vertically sided excavation. This limitation has been observed in the mine plan designs. The excavation progress is monitored by a sonar system and hence provides a high level of control.

A mine recovery of 100% was adopted in the Ashton Feasibility Report (1997) due to the observed contact conditions between the kimberlite and country rock. Similarly, a 100 percent mining recovery within the 0.5m skin has been adopted for the mechanical clamshell grab mining.

### Wall Stability

A recent study undertaken by SMEC (2012) on the geotechnical stability analysis of opening a void from deep dredging operations in the Gawain Pit has been used as the base-case scenario for pit wall stability.

In all cases, the probability of failure (POF) at 80m does not exceed 47%, and the probable mean sized block (approximately 1m³) during any failure is well within the excavation and lifting capabilities of the 5m³ mechanical clamshell grab. The initial geotechnical stability analysis also assumed an open air void whereas the clamshell grab will be operating in a submerged environment. The hydrostatic pressure will aid the wall stability. The surrounding wall rock is the horizontally bedded Bukalara Sandstone unit that possesses vertical joint sets which limits the mean block size.

The mineable ore shape has been specifically designed to leave behind a 0.5m skin of kimberlite and mitigate the interaction of the mechanical grab with the surrounding wall rock. Any failure of the surrounding country rock is predicted to be small scale and localised.

# Diggability

The weathering model developed during the Global Mineral Resource estimate has been determined using Uni-axial Compressive Strength (UCS) test data in conjunction with core photographs and geological logs.

The UCS data is used to estimate the tensile strength of the material. This is critical as the UCS dictates the initial penetration depth of the mechanical clamshell grab, whereas the tensile strength indicates how easily the material will break apart upon closure of the clamshell grab. The closing and penetration force of various size mechanical and hydraulic grabs were assessed during equipment selection assessment. A theoretical diggability relationship was determined for the adopted 5m³ mechanical clamshell grab.

The mechanical clamshell grab selected can economically mine material with a UCS of up to 25MPa which is indicative of the weathered kimberlite material within the Global Indicated Mineral Resource estimate. The UCS of the material is variable within the pipes at differing depths.

The kimberlite ore within the weathered horizon of the Global Indicated Mineral Resource was considered diggable as it is less than 25MPa.

## Ore Slumping

The 0.5m thick skin of remaining kimberlite forms a weakly bonded contact with the country rock and is likely to slump into the void as mining progresses. The Recoverable Mineral Resource estimate does not include kimberlite from ore slumping of the 0.5m skin.

In some pipes, such as Excalibur, the 0.5m mine skin is in contact with kimberlite ore, not country rock. There is the potential of undercut ore slumping of both the 0.5m skin and further kimberlite ore into the void as mining progresses. The Recoverable Mineral Resource does not include ore slumping from the vertically walled excavations.

### **Bulk Density and Moisture Content**

A large data set has been taken to determine the wet bulk density (field bulk densities) of the kimberlite ore. The database shows ranges from 3%-26% moisture content.

The Recoverable Mineral Resource estimation (tonnes) is derived from volumes (BCM) (including contained diamonds) converted to weight (tonnes) using the field wet bulk densities described in Appendix B. The bulk density of kimberlite has been applied to each individual pipe and each weathering horizon.

#### **Production Rate**

Theoretical excavation volumes have been calculated based upon the mechanical clamshell grab closing force and ground engaging tools relative to the strength (UCS) of the ore. Heaping of the ore inside the clamshell will occur within the weaker, more weathered ore and as the ore strength increases the heaping will reduce. The theoretical excavation volume calculated for a given strength of ore assumes the material has a homogenous tensile strength (which is derived from the UCS).

The production rate of the mechanical clamshell grab has been assumed to consistently reach the grab "waterline" full of 5m<sup>3</sup> per cycle. This assumption is considered conservative as the heaping of the clamshell with weathered kimberlite ore is predicted to occur more frequently than under-filling.

The clamshell grab winch has a hoisting speed of 39 metres per minute and as the excavation deepens the cycle time increases. The production profiles for each pit have been estimated using the time estimates for clamshell grab movements described in Table 5. Table 6 summarises the time and motion study for the mechanical clamshell grab.

**Table 5 Time estimates for Clamshell Grab Movements** 

MOVEMENT	TIME ESTIMATE (mins)	DESCRIPTION
Lowering Time	Variable	Variable time taken to lower the grab from the surface to the kimberlite face based on the winch speed of 39 metres per second
Closing Time	0.17	Fixed time taken (10 seconds) for the Mechanical Clamshell Grab jaws to close
Freeing Time	0.17	Fixed time taken (10 seconds) for the grab suction to subside and allow lifting
Lifting Time	Variable	Variable time taken to lift the grab from the kimberlite face to the water surface based on the winch speed of 39 metres per second
Barge Mvmt #1	0.50	Fixed time taken (30 seconds) to push the hopper barge under the grab
Emptying Time	0.33	Fixed time taken (20 seconds) for the jaws to open and completely empty into the hopper barge
Barge Mvmt #2	0.50	Fixed time taken (30 seconds) to remove the hopper barge from under the grab
Hopper Changeover	1.25	Fixed time taken to changeover a full hopper barge with an empty hopper barge. This is conservatively estimated to take 10 minutes. Eight full grabs are required to fill a hopper barge. Accordingly the 10 minute Hopper Changeover time is divided by the eight full grabs required to fill a hopper barge to derive an allowance for Hopper Changeover per grab cycle of 1.25 minutes (85 seconds).

Table 6 Grab cycle time (minutes) relative to depth (metres)

Depth	Lowering Time	Closing Time	Freeing Time	Lifting Time	Barge Mvmt 1	Emtying Time	Barge Mvmt 2	Hopper Changeover	TOTAL TIME (Mins)
20	0.51	0.17	0.17	0.51	0.50	0.33	0.50	1.25	3.94
25	0.64	0.17	0.17	0.64	0.50	0.33	0.50	1.25	4.20
30	0.77	0.17	0.17	0.77	0.50	0.33	0.50	1.25	4.46
35	0.90	0.17	0.17	0.90	0.50	0.33	0.50	1.25	4.71
40	1.03	0.17	0.17	1.03	0.50	0.33	0.50	1.25	4.97
45	1.15	0.17	0.17	1.15	0.50	0.33	0.50	1.25	5.22
50	1.28	0.17	0.17	1.28	0.50	0.33	0.50	1.25	5.48
55	1.41	0.17	0.17	1.41	0.50	0.33	0.50	1.25	5.74
60	1.54	0.17	0.17	1.54	0.50	0.33	0.50	1.25	5.99
65	1.67	0.17	0.17	1.67	0.50	0.33	0.50	1.25	6.25
70	1.79	0.17	0.17	1.79	0.50	0.33	0.50	1.25	6.51
75	1.92	0.17	0.17	1.92	0.50	0.33	0.50	1.25	6.76
80	2.05	0.17	0.17	2.05	0.50	0.33	0.50	1.25	7.02
85	2.18	0.17	0.17	2.18	0.50	0.33	0.50	1.25	7.28
90	2.31	0.17	0.17	2.31	0.50	0.33	0.50	1.25	7.53
95	2.44	0.17	0.17	2.44	0.50	0.33	0.50	1.25	7.79
100	2.56	0.17	0.17	2.56	0.50	0.33	0.50	1.25	8.04
105	2.69	0.17	0.17	2.69	0.50	0.33	0.50	1.25	8.30
110	2.82	0.17	0.17	2.82	0.50	0.33	0.50	1.25	8.56
115	2.95	0.17	0.17	2.95	0.50	0.33	0.50	1.25	8.81
120	3.08	0.17	0.17	3.08	0.50	0.33	0.50	1.25	9.07
125	3.21	0.17	0.17	3.21	0.50	0.33	0.50	1.25	9.33

# **Processing Recovery**

The Global Mineral Resource estimate grade models are derived from past production records which included diluting material that reported to the ROM Pad such as xenoliths.

The processing plant has a front end grizzly with 135-140mm scalping bars. Any material greater than 140mm will not pass through to the processing plant. This material will be stockpiled on the ROM pad. The existing on-site excavator has a mobile crusher attachment which will be used to reduce the material to sub-140mm on a campaign basis to allow the processing of the oversize material. The beneficiation, scrubbing and HPGR within the current processing facility will reduce these harder fractions to liberate the contained diamonds.

The Recoverable Mineral Resource acknowledges the use of this facility and hence no further allowances are required.

# Water Management

Due to the nature of each pit, there exists differing requirements to maintain the operating water levels in the pits for the floating barge mining operation. The water balance and management strategies for each pit are assessed in the FS. This includes both the recharge rates and the requirements, if any, to either lower or raise the water levels during the mining activity.

#### Climatic Allowances

Data obtained from the Bureau of Meteorology (BOM) and local meteorological weather stations provide an accurate historical record of seasonal shifts in the weather. The seasonal cyclonic and tropical wet seasons will affect mining production. During the wet season, the mechanical grab can continue to operate, however the haulage fleet may not be able to safely operate within the pits due to loss of traction on the pit ramps and the haul roads.

Depending on the schedule for each particular year, mining production drops to single shift during December before ceasing entirely during January and February. Recommencement in March is on single shift only before resuming double shift in April to rebuild stockpiles. Processing production assumes a double shift for each month as the weather does not fundamentally affect the processing plant. Prior to the wet season, remedial work will be undertaken around the ROM bin to ensure all-weather loader accessibility.

This annual production profile varies slightly depending on the vagaries of the pits being mined and amount of modelled stocks available.

# **Grade Frequency Distribution**

The Global Mineral Resource estimate detailed below forms the basis of the Recoverable Mineral Resource grades. The diamond grade frequency distribution for each pipe was derived from production data and bulk sampling information. This constitutes substantial grade data for the pipes and accurately defines the majority of the grade frequency distribution. However the data is dictated by the recovery of the former processing plant at Merlin which focused on recovery of larger diamond fractions (+7DTC). Where possible, this was corrected in the Global Mineral Resource estimate as the grade frequency distribution for smaller fractions (+5DTC, +3DTC and -3DTC) were increased based on available bulk sampling, grade samples and drill core assay data. The smaller fractions were adjusted on the Ywain, Gawain and Sacramore grade frequency distributions.

Therefore the grade frequency distribution for the Global Mineral Resource estimate for Ywain, Gawain and Sacramore exhibits higher grades for the smaller diamond fractions than those historically recovered at Merlin or that could be recovered with the proposed processing plant and recovery circuit.

The grade frequency distributions used for the Global Mineral Resource estimate have been used for the Recoverable Mineral Resource except for Ywain and Gawain. The grade of the +5DTC, +3DTC and -3DTC fractions for the Ywain and Gawain grade frequency distributions used for the Global Mineral Resource estimate have been reduced to the historically recovered grades.

Figure 6 and Figure 7 show Ywain and Gawain Global Mineral Resource estimate grade frequency distributions with higher grades in the smaller fractions derived from bulk sampling, grade samples and drill core assay data. The smaller fractions of the Global Mineral Resource estimate grade frequency distribution have been reduced to the historically recovered grades to form the Recoverable Mineral Resource estimate grade frequency distribution shown in Figure 6 and Figure 7. The Recoverable Mineral Resource grade frequency distributions for Ywain and Gawain are reliable estimates of the grades from a commercially operated diamond recovery plant.

Figure 8 shows the grade frequency distributions for all pipes being considered for mechanical clamshell grab mining. The Ywain and Gawain grade frequency distributions shown in Figure 8 are the Recoverable Mineral Resource distributions shown in Figure 6 and Figure 7.

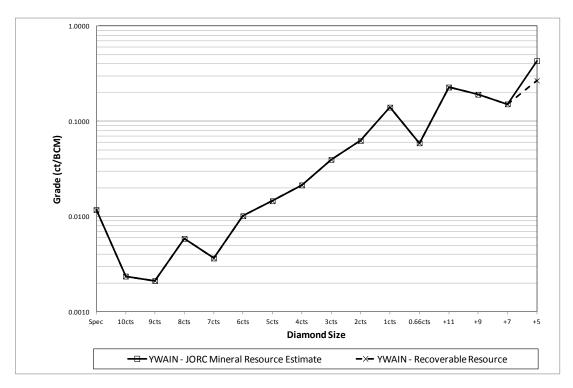


Figure 6: Ywain grade frequency distribution for Global Mineral Resource and Recoverable Mineral Resource estimates.

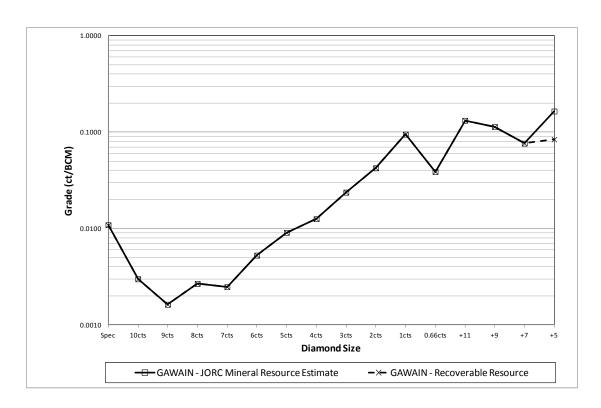
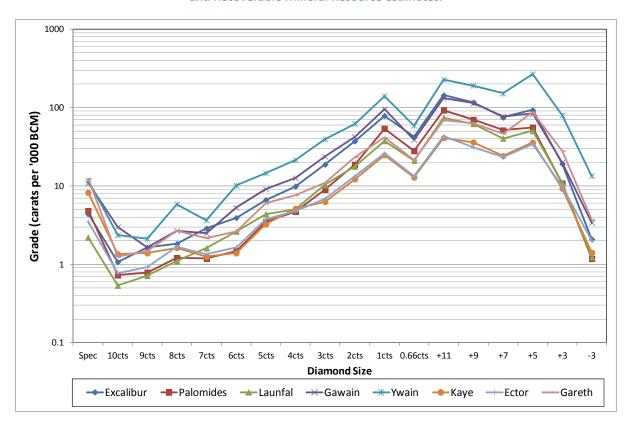


Figure 7: Gawain Grade Frequency Distribution for the Global Mineral Resource and Recoverable Mineral Resource estimates.



**Figure 8: Grade Frequency Distributions** 

#### Final Recovery

The grade frequency distributions in Figure 8 were used to determine the expected carats for each diamond size fraction to be recovered from each respective pipe. The diamond size frequency distribution derived for each pipe was combined with the valuation distribution for each diamond size fraction to determine the expected sales revenue for each diamond size fraction for each pipe.

Figure 9 shows the total revenue in 2015 prices for each pipe according to the diamond size fraction. The graph shows the higher than typical revenue achieved from the sale of Special stones however also shows the low revenue from the smaller fraction. The grey shaded area of the graph shows the - 5DTC to +3DTC (-1.829mm to +1.477mm) and -3DTC (-1.477mm) fractions with total revenues for these fractions below \$100,000.

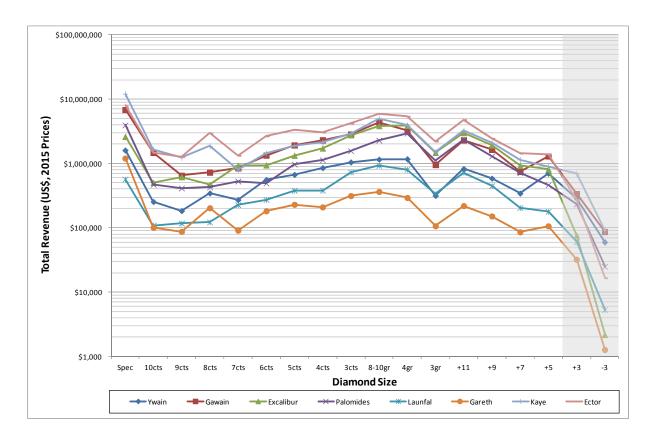


Figure 9: Total Revenue for all diamond size fractions

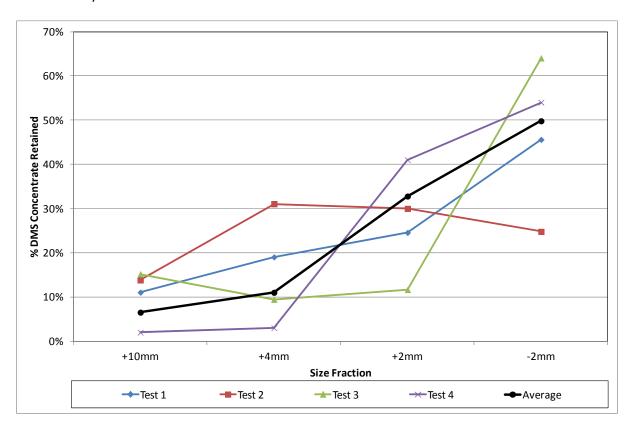
During the recent re-commissioning of the processing plant, four samples of DMS concentrate weighing 2056kg, 550kg, 2933kg and 1606kg were sorted into +10mm, -10+4mm, -4+2mm and -2mm size fractions. Figure 10 shows the results of the four samples together with an average size fraction curve derived from the four samples. The results of these samples suggest that the 400 kg per hour from the DMS would comprise 50 percent of -2mm fraction material (i.e. 200kg per hour of material passing a 5 DTC (1.829mm) screen).

The hand sorting of diamond concentrate is arduous and previous undertakings by Merlin indicate a person sorts approximately 30 kg per shift (3kg/h) of fine fraction concentrate. The predicted 200 kg

per hour of -2mm concentrate would result in approximately 2 tonnes per day which would take 60 person days to hand sort.

The x-ray sorter can accommodate any particle size however the recommended minimum size is 2mm. The x-ray sorter processes material (kg/hour) at approximately 230 times the diameter (mm) of the size fraction. So for the -2mm concentrate the average particle size diameter is 1mm and the machine can process at 230 kg per hour. This processing rate matches the production rate of -2mm concentrate from the DMS. However, the processing of the -2mm fraction precludes processing of the other 200kg per hour of higher value concentrate from the DMS, resulting in a backlog of this material for x-ray sorter processing.

The low total revenue for the finer fraction depicted in Figure 9 and the long recovery times associated with using hand sorting or x-ray sorting the finer fraction led to the consideration of a final recovery cutoff size fraction.



**Figure 10: DMS Concentrate Size Fractions** 

As described previously the diamond size frequency distribution derived for each pipe was combined with the pipe's valuation distribution for each diamond size fraction to determine the expected sales revenue for each diamond size fraction for each pipe. The value of a bank cubic metre of ore (US\$/BCM) from each pipe was derived by dividing total expected revenue (US\$) by the total volume of ore mined (BCM). This was initially undertaken to define the optimal mining sequence of the pipes i.e. the highest value ore is extracted first.

This value model was used to assess a final recovery size fraction cutoff. The unit value of ore (US\$/BCM) was determined for each pipe considering all size fractions and a +5DTC size fraction

cutoff (see Table 7). The difference between the unit value of ore for recovering all size fractions and the unit value of ore for recovering the 5DTC and larger size fractions is also shown in Table 7.

Table 7 Unit Value of Ore for all size fractions and +5DTC size fraction cutoff

Dina	Unit Value of Ore (US\$/BCM)				
Pipe	All Size Fractions	5 DTC Cutoff	Difference		
Ywain	\$430.14	\$407.27	\$22.87		
Gawain	\$285.64	\$277.04	\$8.60		
Excalibur	\$244.07	\$243.39	\$0.67		
Palomides	\$138.67	\$137.06	\$1.61		
Launfal	\$135.75	\$134.45	\$1.30		
Gareth	\$111.16	\$110.24	\$0.92		
Kaye	\$83.04	\$81.60	\$1.44		
Ector	\$63.05	\$62.71	\$0.34		

The unit value difference describes the revenue expected for recovering the finer fraction. For Ywain, the revenue expected per BCM for recovering the -5DTC fraction is \$22.87 whereas for Ector it is 34 cents.

The processing plant produces 200 kg per hour of -2mm fraction material from the 60 tonnes per hour fed into the plant i.e. 0.33%. A single BCM weighs approximately 2,000kg from which 6.7kg of -2mm fraction material can be expected. Hand sorting of 6.7kg would take over two hours and hence the labour cost greatly outweighs the revenue. Similarly, processing this material using an x-ray sorter would require a dedicated machine and operator which also outweighs the revenue expected for recovering these finer fractions.

The Recoverable Mineral Resource grade frequency distribution was adopted with a recovery cutoff size fraction of +5DTC (+1.829mm). The Global Mineral Resource estimate was then re-estimated with a +5DTC recovery cutoff size fraction.

For more details on further modifying factors please see Appendix B – Table 1 of the 2012 JORC Code.

## Recoverable Mineral Resource Estimate

The Recoverable Mineral Resource estimate has been prepared for financial appraisal to determine the economic viability of the Recoverable Mineral Resource and hence the Probable Ore Reserve. Table 8 lists the Global Indicated Mineral Resource estimate for the weathered zone with +5 DTC recovery grade cutoff together with the Recoverable Mineral Resource estimate for each pipe being considered for mechanical clamshell grab mining.

The Recoverable Mineral Resource volumes are notably less than the Global Mineral Resource Estimate volumes due to the 0.5 metre dilution skin, the vertical nature of the excavation and that only the weathered portion of the Global Indicated Mineral Resource has been considered diggable. For the same reason the Recoverable Mineral Resource tonnes are less than the Global Resource tonnes. The Recoverable Mineral Resource grades (ct/BCM) are less than the Global

Mineral Resource grades for Ywain and Gawain due to the correction of the grade frequency distributions shown in Figure 6 and Figure 7 and described earlier. Similarly the Recoverable Mineral Resource grade (ct/BCM) for Palomides is less than the Global Mineral Resource grades for PalSac due to correction of the Sacramore grade frequency distribution in the Global Mineral Resource Estimate.

Table 8: Summary of Global Indicated Mineral Resource Estimate and Recoverable Mineral Resource Estimate with +5DTC cutoff.

INDICATED MINERAL RESOURCES BY PIPE	Volume (BCM)	Density (t/m³)	Resource (tonnes)	Grade (ct/BCM)	Grade (ct/t)	Resource (carats)
Ywain Global Resource	34,050	2.10	71,505	1.37	0.65	46,781
Ywain Recoverable Resource	28,245	2.10	59,315	1.21	0.58	34,192
Gawain Global Resource	151,882	2.06	312,877	0.73	0.36	111,549
Gawain Recoverable Resource	129,800	2.06	267,388	0.65	0.32	84,871
Excalibur Global Resource	171,202	2.03	347,541	0.64	0.31	109,159
Excalibur Recoverable Resource	123,074	2.03	249,841	0.64	0.31	78,472
Launfal Global Resource	127,509	2.36	300,920	0.33	0.14	42,358
Launfal Recoverable Resource	53,341	2.36	125,886	0.33	0.14	17,720
Palsac Global Resource	428,376	2.31	989,549	0.41	0.18	176,250
Palomides Recoverable Resource	169,800	2.31	392,238	0.40	0.17	67,556
Kaye Global Resource	619,356	1.80	1,114,840	0.22	0.12	134,369
Kaye Recoverable Resource	577,177	1.80	1,038,919	0.22	0.12	125,218
Ector Global Resource	999,164	2.04	2,038,295	0.21	0.10	209,280
Ector Recoverable Resource	895,530	2.04	1,826,881	0.21	0.10	187,573
Gareth Global Resource	41,496	2.10	87,142	0.40	0.19	16,572
Gareth Recoverable Resource	38,433	2.10	80,710	0.40	0.19	15,349

The Recoverable Mineral Resource grade frequency distributions for each pipe under consideration for mechanical clamshell grab mining is depicted in Figure 11.

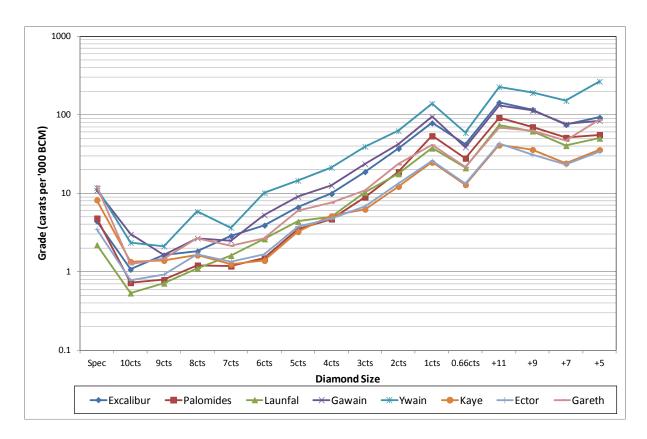


Figure 11: Recoverable Mineral Resource Grade Frequency Distribution

# Mine Design

In all instances, the mining designs have been created to represent a reasonable mining shape that can be expected to be mined with the chosen equipment adopting the most accurate information available and applying appropriate Modifying Factors.

The basis of this fundamental design fulfils the following criteria:

- The excavation commences on a mineable surface. This is interpreted within the design as a surface that is flat or near flat to enable a mechanical grab to rest near-level when excavating.
- In the absence of any final designs the base of the pits are considered to be near flat.
- **>** Berms are considered a flat surface on which mining can commence.
- The initial footprint is the maximum footprint that forms the basis of the design. The mechanical grab cannot mine around corners, as such all designs are cylindrical to an inverted frustum of a cone.
- The design has been created to account for the positioning of the in-pit equipment and in some instances to mitigate the interaction of this equipment with known in-pit instabilities.
- Only material considered to be mineable with the mechanical grab within the weathered portion of the Global Indicated Mineral Resource has been included in the Recoverable Mineral Resource.

The Recoverable Mineral Resource designs take into account the Modifying Factors to enable a practical and conservative mining estimate basis.

#### Mine Schedule

In development of the mining schedule it was considered that ore from all the Merlin pipes costs an equal amount to process per cubic metre.

Therefore the optimal mining schedule is governed by the unit value of ore (\$/BCM) which is derived from the ore grade (ct/BCM) and diamond sales revenue which is directly related to the valuation (\$/ct). Table 7 lists the unit value of ore in descending order for each pipe using the +5DTC recovery cutoff.

The secondary cost factors considered in developing the mine plan were:

- Demobilisation and remobilisation from pits located far afield
- Haulage cost
- Mining equipment synergy

Fortunately the primary mining schedule factor of unit value of ore (\$/BCM) resulted in a mining pit schedule matching the natural clustering at Merlin mine. The central cluster (Ywain and Gawain) is followed by the southern cluster (Excalibur, Palomides and Launfal) and concludes with the northern cluster (Gareth, Kaye and Ector). Accordingly the demobilisation and remobilisation of barges and mining equipment from pits is optimised.

The optimal haulage plan would be for the southern cluster pits nearest the processing plant, followed by the central and then northern pits. The high revenues from the central cluster pits of Ywain (\$407/BCM) and Gawain (\$277/BCM) far exceed the revenues of the southern cluster pits (\$134/BCM to \$243/BCM). Consequently the single figure cost of haulage (\$/BCM) does not deem the southern cluster pits preferential to the central cluster in the optimal mining schedule.

The extensive deposits of Kaye and Ector are planned for mining using a larger mechanical clamshell grab and hence require additional barges for crane stability and ore transfer. Kaye and Ector have the lowest revenue per volume and so are the final pits mined in the mining schedule. This schedule enables the smaller mechanical clamshell grab to be used for all pits prior to capital expenditure on a larger clamshell grab for Gareth, Kaye and Ector.

The mining sequence for the optimal mining schedule is shown in Table 7.

# **Processing Plant**

The current plant at the Merlin Diamond Mine consists of a number of unit processes combined to produce a flow sheet capable of recovering diamonds from a wide variety of ore types.

The plant is laid out in an easily defined manner and consists of the following areas:

- Run-Of-Mine (ROM) Front End
- Scrubbing
- Large Diamond Recovery

- High Pressure Grinding Roller (HPGR)
- > HPGR Dis-agglomeration Circuit
- DMS Plant
- Final Recovery Plant & Sorthouse

The processing plant was re-commissioned in September 2013 for the Hydraulic Borehole Mining trial whereby some mechanical and electrical equipment was repaired. In addition, the weightometers were calibrated and all mechanical components were serviced. The processing plant was operated for 26 days from 18th of September to 14th of October and achieved above nameplate capacity of 60 tonnes per hour. Assuming 75% plant availability for a 12 hour shift the processing plant has been conservatively assumed to be able to process 540 tonnes per shift. The plant is expected to run at two shifts per day with 2 shifts of planned maintenance shutdown per month.

The existing processing plant capacity is limited by the final recovery facility throughput and an upgrade of this facility is therefore proposed.

The proposed upgrade for the final recovery will be undertaken in two phases. Phase 1 is a low capital expenditure upgrade utilising the reductive capabilities of the existing final recovery circuit. Phase 2 involves larger capital expenditure and replaces some of the less efficient reductive components in the existing plant. The two phases are described in the following sections.

#### Phase 1

The Phase 1 upgrade utilises the existing Magnetic Separators in the sorthouse. The magnetic separators reduce the -10mm+4mm DMS concentrate from 1.25 tph to 0.38 tph of non-magnetic diamond-bearing concentrate.

Phase 1 proposes to introduce a single stage x-ray sorter. The unit is fitted with a 'no-noise' generator which increases the optical sensitivity and significantly increases the chance of recovering the low fluorescing diamonds (Type II). The sensitivity of the current x-ray sorters far exceed the capabilities of the machines previously adopted by Rio Tinto at Merlin. The unit is containerised and available for lease.

Final recovery hand sorted diamonds will be cleaned on site before valuation. A containerised caustic cleaning facility will be acquired as part of the Phase 1 final recovery upgrade

### Phase 2

The Phase 2 final recovery upgrade aims to recover diamonds potentially lost in the magnetically separated tailings and will eliminate the magnetic separators and direct all -10mm+0.8mm DMS concentrate (1.25 tph) through x-ray sorters. The single stage x-ray sorters with a production capacity of 0.81 tph will be duplicated to provide 1.62 tph of throughput.

The x-ray tailings will pass onto a grease table for further recovery of elusive non-fluorescent diamonds. The -4mm grease table tailings can be milled if the ore displays high sulphide content before a second pass through the x-ray sorter.

The hand sorted recovered diamonds are cleaned in the containerized caustic cleaning facility installed during the Phase 1 upgrade.

The Tailings Storage Facility (TSF) used for the plant re-commissioning during the recent Hydraulic Borehole Mining trial was Launfal pit. An estimated 20,000 tonnes of tailings were discharged into Launfal pit during the trial, most of which will reside on the safety berms below the water level.

If mined, the Sacramore pipe would only liberate a Recoverable Mineral Resource of 35,000 tonnes. This equates to approximately 5 weeks of processing plant feed. It would take 28 shifts to demobilise and remobilise the clamshell grab mining equipment to and from this pit and hence it is uneconomic to mine using the proposed technique. In addition Sacramore pit has the highest recharge rate which is advantageous as inflow of tailings supernatant to the pit will be readily dissipated into the surrounding aquifer.

Sacramore has been assigned as the initial TSF for the clamshell grab mining operation and hence has not been included in the Recoverable Mineral Resource estimation. Launfal pit will be assigned the TSF for latter stages of the operation.

### Financial Appraisal

A discounted cash flow (DCF) model was developed for the proposed mine operation which considers mechanical clamshell mining within eight of the existing open cut mines and recovering diamonds from the ore utilising the existing processing plant with a minor upgrade in the final recovery circuit. The DCF does not consider interest, tax, depreciation and amortisation however it should be noted that Merlin has approximately A\$91,000,000 in carry forward tax losses that can be offset against future taxable income.

The cash flow model is used to appraise the economic viability of the Recoverable Mineral Resource and estimate the Probable Ore Reserve. The yearly cash flow summary and milling schedule can be found in Appendix D.

# Royalties

The royalties pertaining to Merlin mine lease are based upon Net Revenue, Net Sales or Company Profit. Only the royalties relating to Net Revenue or Net Sales have been applied to the feasibility financial model. Profit is not determined by the financial model as it does not account for interest, tax, depreciation and amortisation. Consequently profit related royalties are not included in the financial model however it should be noted that Merlin has carried forward Negative Net Value of approximately \$43,000,000 which can be offset against the net value of saleable minerals before the government 20% profit royalty become payable.

The royalties are described in further detail in Appendix B.

# Foreign Exchange Rate

The financial model reports in Australian dollars. The Australian dollar to United States of America dollar foreign exchange (FX) rate is used in the financial model to convert revenue estimates from the sales of diamonds in US dollars to Australian dollars.

The September 2014 forecast by Westpac predicts a 2014-15 average FX rate of 0.913. This forecast has the benefit of the September 2014 quarter FX rate of 0.934.

In March 2013 Deloitte Access Economics Business Outlook quoted FX rate forecasts for 2015-16 at 0.870 and 2016-17 at 0.837. In February 2014 Deloitte Access Economics completed a Market Outlook report which states "As global monetary policy gradually tightens, Deloitte Access Economics forecasts the Australian dollar will continuing to ease, depreciating to around US\$0.80 by 2017". The FX rate from September 2013 to September 2014 has ranged from a high of 0.971 in October 2013 to a low of 0.868 in January 2014.

Merlin has derived FX rate forecasts for calendar years based on the Westpac 2014-15 forecast from September 2014 and the Deloitte Access Economics forecasts.

**Table 9 Foreign Exchange Rate Forecast** 

Year	A\$ to US\$ FX Rate
2015	0.892
2016	0.854
2017	0.819
2018 onwards	0.800

### Inflation

The Governor and the Treasurer have agreed that the appropriate target for monetary policy in Australia is to achieve an inflation rate of 2–3 per cent, on average, over the cycle (Reserve Bank of Australia, 2014). In May 2014, the RBA advised that it expected a Consumer Price Index of 2.75 percent for the 2014 calendar year. A 2.5 percent has been adopted for the forward period which is consistent with Australia's monetary policy target of between 2-3 per cent.

### Fuel

Merlin has previously had an agreement based on the Darwin Terminal Gate Price (TGP). The adopted diesel fuel rate is based on the 5-business day average from 13 August to 19 August (www.aip.com.au/pricing/tgp/) less the Fuel Tax Credit of \$0.3814 per litre (https://www.ato.gov.au/Business/Fuel-schemes/In-detail/Fuel-tax-credits---for-GST-registered-businesses/Calculating-and-record-keeping/Fuel-tax-credit-rates-and-eligible-fuels/). The adopted diesel fuel rate is \$1.0656 per litre.

# Contingency Reserve

The Project Management Body of Knowledge (PMBOK) (PMI, 2013) describes contingency as "A provision in the project management plan to mitigate cost risk". The Contingency Reserve accounts for uncertainty of items, conditions and events that based on the level of project definition are likely to occur within project scope to meet the objective i.e. identified risks. A 10 percent contingency has been applied to all Capital Expenditure.

The capital projects planned at the Merlin Diamond Mine are inherently low risk due to:

Small projects less than \$1 million

- Final recovery upgrade are predominantly fixed costs for components
- Earthworks and gabion wharves for mine pits have been previously constructed and were designed in-house
- Few capital upgrades required over the life of mine
- Most sustaining capital upgrades can be undertaken and managed by staff with equipment on site

# Management Reserve

The Management Reserve accounts for uncertainty of items, conditions and events that, based on the level of project definition, may occur and would require change to project scope to meet the objective i.e. unidentified risks. A 5 percent management reserve allowance has been applied to all Operating Expenditure.

The 5 percent allowance has been globally applied to the monthly operational costs. The majority of operating costs, such as the mining and processing are fixed contractor or labour costs. The small Management Reserve has been proposed to allow for:

- Climatic conditions affecting site access. Although mining is suspended during the typical wet season months, it is possible to get unseasonal rains or early/late onset of the wet season.
- Increase in goods and services above CPI. A 2.5% CPI forecast has been adopted however recorded figures by Treasury show that the index can range from below 2 percent to over 3 percent quarter-by-quarter.
- Darwin's Terminal Gate Price for diesel fuel can vary by up to 4 percent within a month (www.aip.com.au/pricing/tgp/).

#### Revenue

The revenue in the model is derived from diamond sales.

As described above the historic diamond sales from 1999, 2000, 2001 and 2002 have been inflated using observed market trends to determine 2015 diamond valuations. The historical long term diamond price CAGR (previous decade) of 9% has been adopted from 2015 onwards.

# Capital Expenditure

The capital cost estimates are based on historical costs from recent installations and unit rates from local contractors obtained during the hydraulic borehole mining trial from August to October 2013. A complete schedule of capital expenditure (CAPEX) is detailed within the financial model which is categorised as sustaining capital (SC) and capital upgrades (CU). The sustaining capital is often represented as a monthly allowance. In such circumstances, no sustaining capital is contributed for the final year of production on the premise that the preceding year has provided budget for the final year.

# Mining

There are two upfront capital items required for the mining operation. The crane, gearboxes, winches and cables for the mechanical clamshell grab mining is the largest capital item. The clamshell grab is available through a hire purchase arrangement which enables an initial deposit, followed by rental for the first three months. After three month the deposit and rental are fully refundable against the purchase of the clamshell grab. A larger clamshell grab is procured in November 2017 for mining of the Northern cluster pipes.

The hydraulic power units were purchased new by Merlin. The mining barge will be owned by Merlin and the hopper barges are supplied by the mining contractor.

A gabion wharf was constructed in Ywain pit for the hydraulic borehole mining trial completed in 2013. This wharf will be utilised for the Ywain clamshell grab operation. Similar gabion wharves need to be constructed for each pit to be mined. These sustaining capital costs include minor capital costs for ramp re-sheeting. The labour, fuel and machinery costs are not included in the capital costs as these are accounted for in the Operating Expenditure. Merlin has the machinery and material on site to construct this infrastructure:

- > 15 tonne tip truck
- Pneumatic wheeled roller
- ➤ 4.5m blade grader
- ➤ 3 tonne loader
- > 30 tonne excavator
- Sorted scats for the gabion baskets

# Processing

The processing plant was successfully re-commissioned in August 2013, however a list of critical items remain outstanding to be undertaken after the first 12 months of operation. These include replacement of the trommels, installation of rubber wear liners in the trommels, replacement of the girth gear on one of the trommels and replacement of some gearboxes and motors. The hire purchase of a bobcat, loader and elevated work platform (EWP) has been included as part of the capital upgrade.

The processing plant components vary in age, from the newer HPGR to the older conveyors and trommels. A sustaining capital allowance of \$5,000 per month has been allowed to facilitate capital repairs to the existing plant over the life of mine.

Allowances have been made for the re-location of the drying kiln and hire purchase of a bobcat to facilitate tailings and spillage clean up.

## Recovery

The recovery upgrade comprises three components: x-ray sorter, grease table and caustic cleaning facility. Tender prices have been received from several suppliers for each component.

Following an initial deposit, the x-ray sorter can be hire purchased over the first twelve months with rents totally refundable on the purchase price. The first x-ray machine installed

on hire purchase will be used to process concentrate from the magnetic sorters. After the first twelve months, the x-ray sorter will be purchased and magnetic sorters will be removed from the final recovery and replaced by a second x-ray sorter on hire purchase. The second x-ray sorter will be purchased after twelve months.

An additional transport and installation materials provision of \$52,500 has been made for chute, hopper, electrical and concrete foundations. The installation labour of an electrician, plumber, fitter and concreter are taken from the mobilised workforce at site.

A containerised grease table circuit has been nominated in the final recovery upgrade with an additional \$20,000 provision for the installation materials for integration, electrical and concrete foundations. The installation labour of an electrician, plumber, fitter and concreter are taken from the mobilised workforce at site.

A containerised Caustic Cleaning facility with furnace and site transport has been included in the final recovery upgrade. A \$30,000 provision has been made for the installation materials for plumbing, electrical, water and concrete foundation. The installation labour of an electrician, plumber, fitter and concreter are taken from the mobilised workforce at site.

A provision of \$30,000 has been made for materials to extend a bay on the existing final recovery sort house including lighting and concreting a floor in the existing sorthouse. An additional \$20,000 allowance has been provided for materials to integrate the magnetic sorter and final sorting circuit. The installation labour is taken from the mobilised workforce at site.

The elevated work platform proposed is to be hire purchased and the forklift, excavator and the existing 25 tonne Tadano crane on site are available for installation works.

### Maintenance

The items required on site from a capital upgrade or sustaining capital for maintenance includes small and large tools, ladders and several sea containers for stores.

An allowance has been made for the hire purchase of two rudimentary light vehicles for the maintenance crew. The existing 5 light vehicles on site will be allocated to management and processing crews.

#### Security

There have been continual upgrades to the security systems on site in recent years with minor upgrades remaining. A sum of \$1,000 per month has been allocated as sustaining capital to cater for replacement of hardware and cameras over the mine life. This contribution commences in the third month of operation.

## Administration

The accommodation village has sufficient sleeping capacity for the planned operation. The existing laundry has 3 washing machines and 2 dryers which were found to be under strain

when the camp was at maximum capacity during the hydraulic borehole mining trial in September 2013.

An ongoing amount of sustaining capital of \$2,000 per month has been assigned to the village for the acquisition of new appliances such as additional washing machines and general upkeep of the camp such as kitchen wares, linen, furniture, pumps, sewage treatment plant, communications and general maintenance items.

The airstrip has been allocated \$2,500 at the commencement of operations for the replacement of several markers and the purchase of duty and standby batteries for the emergency airfield lighting.

A capital budget of \$30,000 has been allocated for materials to cast a new concrete floor in the bunded fuel storage area at the accommodation village and refurbish the earth bunded fuel storage area at the processing plant. The current proposal is to relocate two 10,000 litre tanks and an approximately 40,000 litre tank from the decommissioned fuel storage area at the processing plant to a newly refurbished fuel storage area at the accommodation village. Furthermore, the construction of a small HDPE lined earth bunded fuel storage area at the plant for the remaining approximately 35,000 litre tank.

### Operating Expenditure

Operating costs have been based on historical costs from hydraulic borehole mining trial conducted from August to October 2013. This data includes fuel consumption, unit rates from local contractors, tenders received and existing contractual arrangements.

# Labour

The personnel for the Merlin mechanical clamshell grab mining operation are listed in Table 10 to Table 13.

The Merlin personnel are full-time employees on salary with oncosts of superannuation, payroll tax, long service leave and workcover. The contract personnel rates come from various sources. The tradesperson rates come from recent contracts during the hydraulic borehole mining trial. The haul truck costs have been provided as a dry hire rate with driver. The mining shift rates have been provided by for a grab dredge contractor and are based on 5 personnel including the Barge Master, Barge Operator, Boatman, Shoreman and Excavator Operator.

The security and catering personnel rates are through recent contracts during the hydraulic borehole mining trial in late 2013. All salaries and contract rates exclude accommodation and transport to the Merlin Diamond Mine. In 2013 Merlin operated two 9 seater charter planes from Darwin to facilitate roster change outs at the mine.

Merlin staff flight costs are from place of domicile and an additional \$350 flight and \$200 accommodation cost has been allocated per roster change. All contract staff flights ex-Darwin are paid for by Merlin.

**Table 10 Merlin Diamond Mine Management and Maintenance Personnel** 

Position	Engagement
Mine Manager	MDL
Mine Foreman	MDL
Leading Hand	MDL
Leading Hand / Stores / Projects	MDL
Mechanic #1	MDL
Mechanic #2	Contract
Senior Fitter	Contract
Fitter #1	Contract
Fitter #2	Contract
Boilermaker	Contract
Electrician #1	Contract
Electrician #2	Contract
Administration Officer	MDL (DIDO)

**Table 11 Merlin Diamond Mine Processing and Recovery Personnel** 

Position	Engagement
Plant Supervisor #1	MDL
Plant Supervisor #2	MDL
Plant Supervisor #3	MDL
Plant Operator #1	MDL
Plant Operator #2	MDL
Plant Operator #3	MDL
Plant Operator #4	MDL
Plant Operator #5	contract
Plant Operator #6	contract
Sorthouse Superintendent #1	MDL
Sorthouse Superintendent #2	MDL
Technician #1	MDL
Technician #2	MDL

**Table 12 Merlin Diamond Mine Mining and Haulage Personnel** 

Position	Engagement
Barge Master #1	Mining contractor
Barge Master #2	Mining contractor
Barge Master #3	Mining contractor
Barge Operator #1	Mining contractor
Barge Operator #2	Mining contractor
Barge Operator #3	Mining contractor
Boatman #1	Mining contractor
Boatman #2	Mining contractor
Boatman #3	Mining contractor
Shoreman #1	Mining contractor
Shoreman #2	Mining contractor
Shoreman #3	Mining contractor
Excavator Driver #1	Mining contractor
Excavator Driver #2	Mining contractor
Excavator Driver #3	Mining contractor
Truck Driver #1	Haulage contractor
Truck Driver #2	Haulage contractor
Truck Driver #3	Haulage contractor
Truck Driver #4	Haulage contractor
Truck Driver #5	Haulage contractor
Truck Driver #6	Haulage contractor

**Table 13 Merlin Diamond Mine Security and Catering Personnel** 

Position	Engagement
Security Officer #1	contract
Security Officer #2	contract
Security Officer #3	contract
Security Officer #4	contract
Security Officer #5	contract
Security Officer #6	contract
Chef Manager #1	contract
Chef Manager #2	contract
Cook/ Utility #1	contract
Cook/ Utility #2	contract
Cook/ Utility #3	contract
Cook/ Utility #4	contract
Cook/ Utility #5	contract
Cook/ Utility #6	contract

# Mining

The mechanical clamshell grab mining cost estimate is based upon the requested tender from a grab dredge contractor. Merlin has developed the proposed mining at Merlin in consultation with the marine and civil contractors that have provided tendered costs for mobilisation and operation. The operating costs are considered to be accurate operational estimates.

The mechanical clamshell grab winches are powered by Merlin's two hydraulic power units (HPU) which are each driven by Cummins QSX15 diesel engines each delivering available power of 455kW. Fuel consumption data by Cummins (2008) state the engines use 108 litres per hour at 100 percent output and 35.5 litres per hour at low duty (25% output). The HPUs will need to deliver high power output during the grab closing, freeing and hoisting movements whilst low power output will be required for the grab emptying and during barge movements and grab re-positioning.

Table 6 lists the breakdown of the grab cycle time (minutes) relative to the depth of excavation. The maximum hoisting distance for each pit varies from 84 metres for Gawain to 134 metres for Excalibur. The average maximum hoisting distance for all pits is 102.5 metres. Accordingly the average hoisting distance during mining the ore body is between 42 and 67 metres with an average hoisting distance for all pits of 51 metres.

From Table 6 the total grab mining cycle time for the average hoisting distance of 50m is 5.48 minutes with the grab closing, freeing and hoisting movements comprising only 1.62 minutes, or 30 percent. Therefore the HPUs only need to provide high power output for 30 percent of the grab mining cycle and low power output for the remaining 70 percent of the time.

The total grab mining cycle time for the minimum average hoisting distance of 40m is 4.97 minutes with the grab closing, freeing and hoisting movements comprising only 1.37 minutes, or 28 percent. The total grab mining cycle time for maximum average hoisting distance of 65m is 6.25 minutes with the grab closing, freeing and hoisting movements comprising only 2.01 minutes, or 32 percent.

The duration of HPU high output of 28 and 32 percent for the minimum and maximum average hoisting distance is not significantly different than the duration of HPU high output of 30 percent for the average hoisting distance. Hence the duration of HPU high output of 30 percent for the average hoisting distance of 50m has been adopted for all pits at Merlin mine.

From the Cummins fuel consumption data the HPUs operate at high power consuming 108 litres per hour for 30 percent of the shift and operate a low power consuming 35.5 litres per hour for the remaining 70 percent of the shift. A single shift amounts to 9 hours of operation given the mining availability of 75 percent. This amounts to each HPU using 515 litres per shift or a total of 1,030 litres per shift.

The haul truck costs for dry hire with driver are based on rates provided by contractors. The Southern cluster pits only require one haul truck given its close proximity to the ROM pad and short cycle time. The Central cluster pits require two haul trucks in cycle and the Northern cluster pits require three haul truck in cycle given the longer haul distance from the ROM pad. There are no stockpiles at the pits and hence the haul trucks operate concurrently with the mining schedule. Similarly the excavator unloading the hopper barges on the pit wharf and the water truck operate concurrently with the haul trucks in accordance with the mining schedule. The loader on the ROM pad operates concurrently with the processing plant schedule.

An operating budget of over \$5,000 per month has been allocated for materials associated with day works for the mining, PPE, electrical, tools, general maintenance and consumables. Two light vehicles are allocated to the mining crew.

## Processing

An extensive review of the processing plant operation was undertaken following the recommissioning in August 2013. A comprehensive list of operating expenditure provisions was developed for each area of the processing plant. Table 73 lists the operating expenditure (OPEX) for a typical month at the Merlin processing plant comprising a two 12-hour shifts per day.

**Table 14 Processing Plant Operating Expenditure** 

PROCESSING PLANT CIRCUIT	AREA NUMBER	OPEX (\$/Month)
Rom feed	100	500
Process water dam	110	700
Tailings circuit	120	2,000
Apron feeder	130	3,400
Primary scrubber	140	2,400
Secondary scrubber	150	3,300
Primary screen	160	2,700
Optical sorter	170	1,900
High pressure grinding roller	200	2,200
Audax scrubber	300	2,500
Power supply	400	57,116
Dense media separation	500	12,200
Kiln & recovery bin	600	3,275
General processing	700	2,677
	TOTAL	96,868

The major OPEX is diesel for the plant power supply which is based on 23,000 litres per month for a single shift. This amounts to \$49,016 per month for two 12-hour shifts per day.

An allowance of \$8,000 per month has been made for materials to service motors and gearboxes across all plant areas. Similarly, \$7,700 per month has been allocated to electrical materials and \$3,800 per month for lubricants and oils to service all areas of the plant.

A large portion of the DMS costs comprises \$5,000 per month for reagents. Other large OPEX items include \$4,500 for rental of self-bunded fuel tanks and \$2,500 per month for gas to fire the kiln drier.

## Recovery

The recovery circuit operating expenditure is \$7,200 per month which is dominated by the \$4,000 per month for consumables and maintenance of the caustic cleaning facility and \$1,000 per month for wax and grease for the grease table.

### Security

Security costs approximately \$39,000 per month which includes the fuel and servicing of a dedicated vehicle.

# Workshop & Ancillary

The workshop operating expenditure includes \$8,000 per month for parts and materials to maintain the supporting plant and equipment such as the crane, forklift, tray trucks, grader, auxiliary loader and the water supply and tailings pumps. Over \$4,500 per month of fuel is allocated to operate the supporting plant and equipment.

### Administration

The administration division includes the largest costs of FIFO and catering. Other major items include \$16,000 per month on communications and IT; \$9,000 per month on freight to the mine site and over \$20,000 per month for camp power supply. A sum of \$4,500 per month has been allocated to occupational health and safety.

### Project Evaluation

The base case project scenario is mining at eight of the existing open cut pits adopting mechanical clamshell grab mining techniques and the existing processing plant with an upgrade to the final recovery circuit. A key assumption for the base case project scenario is that revenue for diamond sales is credited within a month of dispatch.

The summary of the financial metrics for the base case project scenario is provided in

Table 15 and the cumulative discounted cash flows are depicted in Figure 12.

**Table 15 Financial Metrics for Base Case Scenario** 

METRIC	MEASURE
Internal Rate of Return	52.7%
Net Present Value at 8% discount rate	\$102.2 million
Free Cash Flow	\$132.9 million
Payback Period	4 months
Maximum Negative Cash Position	\$4.23 million
Life of Mine	11 years

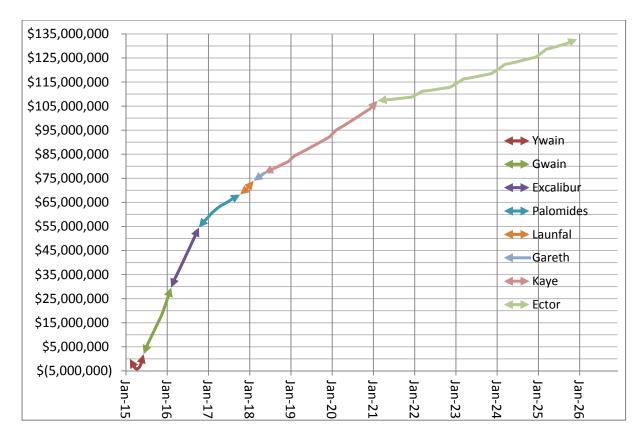


Figure 12 Cumulative Undiscounted Cash Flow for Base Case Scenario

## Sensitivity Analysis

Sensitivity analysis of the discounted cash flow model were undertaken on Revenue by modifying the cumulative annual growth rate (CAGR) for the diamond price and on Costs by modifying the Contingency and Management Reserve provisions.

### Revenue

The adopted CAGR for diamond prices is 9 percent based on the trend over the past 11 years. The CAGR in the past 6 years (2009 to 2014) has been 13 percent and this has been adopted as an upper limit for the sensitivity analysis. The diamond price CAGR for the five years from 2004 to 2008 was 5 percent and this has been adopted for the lower bound. Table 75 shows the comparison of the base case 9% CAGR with the +/-4% upper and lower sensitivity limits. The most notable difference is the flat revenue for the lower limit of 5% CAGR profile from 2021 onwards when Ector is being mined. Whilst marginal during this period Ector is still cashflow positive year by year.

**Table 16 Financial Metrics for Base Case and Revenue Sensitivities** 

METRIC	9% CAGR	5% CAGR	13% CAGR
Internal Rate of Return	52.7%	52.1%	53.4%
Net Present Value at 8% discount rate	\$102.2 million	\$78 million	\$126.5 million
Free Cash Flow	\$132.9 million	\$93.1 million	\$172.6 million
Payback Period	4 months	4 months	4 months
Maximum Negative Cash Position	\$4.23 million	\$4.23 million	\$4.23 million
Life of Mine	11 years	11 years	11 years

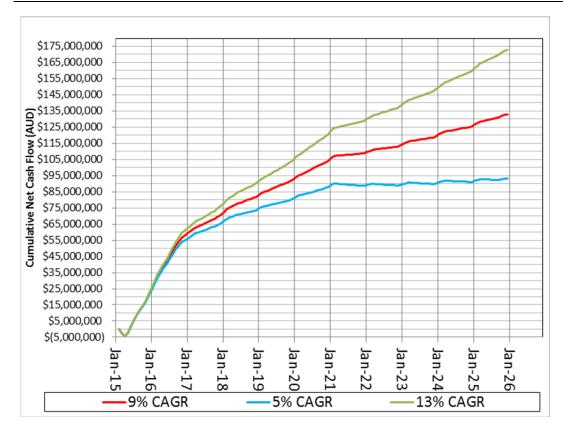


Figure 13 Revenue Sensitivity Analysis – Diamond Price CAGR

### Costs

The Contingency and Management Reserve provisions have been adopted as 10 percent and 5 percent respectively. The Contingency Reserve (CR) is applied to capital expenditure only and the Management Reserve (MR) has been applied to operating expenditure. The upper bound for the Management Reserve and Contingency Reserve has been adopted at 30 percent and 20 percent respectively. The lower bound for the Management Reserve and Contingency Reserve has been adopted at 0 percent. The cost sensitivity analysis shows that the project is not particularly sensitive to cost changes.

**Table 17 Financial Metrics for Base Case and Cost Sensitivities** 

METRIC	10% CR 5% MR	30% CR 20% MR	0% CR 0% MR
Internal Rate of Return	52.7%	45.2%	56.1%
Net Present Value at 8% discount rate	\$102.2 million	\$84.1 million	\$108.4 million
Free Cash Flow	\$132.9 million	\$76.9 million	\$142 million
Payback Period	4 months	4 months	4 months
Maximum Negative Cash Position	\$4.23 million	\$4.75 million	\$4.00 million
Life of Mine	11 years	11 years	11 years

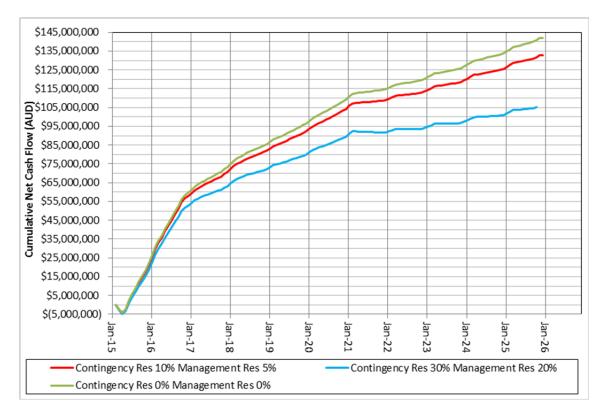


Figure 14 Cost Sensitivity Analysis – Contingency and Management Reserves

### **2014 PROBABLE ORE RESERVE ESTIMATE**

The base case financial appraisal shows that all eight pits considered in the Recoverable Mineral Resource are economically viable. The Probable Ore Reserve summary is provided in Table 18.

**Table 18 Summary of Probable Ore Reserve estimate** 

	PROBABLE ORE RESERVE SUMMARY @ +5DTC lower cutoff						
PIPE	VOLUME	DENSITY	PROBABLE ORE	GRADE	RESERVE		
	(Mbcm)	(t/m³)	RESERVE (Mt)	(cpht)	(Mcts)		
Ywain	0.03	2.1	0.06	58	0.03		
Gawain	0.13	2.1	0.27	32	0.08		
Excalibur	0.12	2.0	0.25	31	0.08		
Palomides	0.17	2.3	0.39	17	0.07		
Launfal	0.05	2.4	0.13	14	0.02		
Gareth	0.04	2.1	0.08	19	0.02		
Kaye	0.58	1.8	1.04	12	0.13		
Ector	0.90	2.0	1.83	10	0.19		
TOTAL	2.02	2.0	4.04	15	0.61		

 $Mbcm = million \ bank \ cubic \ metres, \ t/m^3 = tonnes \ per \ cubic \ metre, \ Mt = million \ tonnes, \ cpht = carats \ of \ diamonds \ per \ hundred \ tonnes, \ Mcts = millions \ of \ carats \ of \ diamonds.$ 

The information in this report that relates to Ore Reserves is based on information compiled by Dr David Tyrwhitt, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Dr Tyrwhitt is employed by DS Tyrwhitt & Associates and is a Director of Merlin Diamonds Ltd. Dr Tyrwhitt has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Tyrwhitt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Persons Consent Form for this Probable Ore Reserve estimate is provided in Appendix A.

These Ore Reserves are stated as at 30 September 2014 and are defined as ore delivered to the processing plant.

This Probable Ore Reserve is not additional material to the Mineral Resource estimates reported below but is included within the Indicated category of the Mineral Resource estimate.

Rounding of tonnage and carats may result in computational discrepancies.

Detailed cross sections displaying the Probable Ore Reserve outlines can be found in Appendix C – Drillhole Information, Plans and Cross Sections.

### Material Changes Since 2011 Ore Reserve Estimate

Merlin first announced an Ore Reserve estimate in 2011 and is presented in Table 19. This estimate was based on a combination of open pit and underground mining methodologies. The estimates were based on preliminary engineering work conducted by AMC Consultants Pty Ltd. The study assessed four open pits at Ywain, Gawain, Palsac and Kaye/Ector with three underground mines at Ywain, Gawain and Palsac. There are significant changes from the 2011 Probable Ore Reserve estimate to the current 2014 Probable Ore Reserve estimate and these changes are summarised in Table 20.

The effect of these material changes has caused the total tonnage to reduce by 64% from 11.1Mt in 2011 to 4.04Mt in 2014. The total contained carats have reduced by 79% from 2.89Mcts in 2011 to 0.61Mcts in 2014.

**Table 19 2011 Probable Ore Reserve Estimate** 

	Probable Ore Reserve (Mt)	Grade (cpht)	Carats (Mcts)
Southern Cluster			
PalSac <sup>2</sup>	8.1	30	2.41
Sub-Total	8.1	30	2.41
Central Cluster			
Gawain <sup>2</sup>	0.5	39	0.21
Ywain <sup>2</sup>	0.1	81	0.05
Sub-Total	0.6	44	0.26
Northern Cluster			
Kaye <sup>2</sup>	0.9	12	0.10
Ector <sup>1</sup>	1.5	7	0.11
Sub-Total	2.4	9	0.22
TOTAL	11.1	26	2.89

Resource grade based on previous mining operation recovery using a +0.95 mm slotted bottom screen and a +0.95mm cutoff.

The 2011 Probable Ore Reserve estimate is extracted from the report entitled "North Australian Diamonds Limited Annual Report 2011 and is available to view on:

http://www.merlindiamonds.com.au/resources/i/docs/annual reports/nad annual report 2011 final.pdf This estimate was reported in accordance with 2004 JORC Code guidelines and has now been superseded by the 2014 Probable Ore Reserve estimate of this report.

<sup>&</sup>lt;sup>2</sup>Resource grade based on bulk sample test work using a +0.85 mm slotted bottom screen and a +1mm cut-off. Mt = million tonnes, cpht = carats of diamonds per hundred tonnes, Mcts = millions of carats of diamonds. Rounding of tonnage and carats may result in computational discrepancies.

Table 20 Material changes between the 2011 & 2014 Ore Reserve Estimate

	PROBABLE ORE RESERVE ESTIMATES					
MATERIAL CHANGE	2011			2014		
Mineral Resource estimate basis	Based on 20 estimates	010 Mineral F	Resource	Based on updated 2014 Mineral Resource estimates (see below for summary of changes in the 2014 Mineral Resource estimates)		
Mining methodology	Considers a combination of open pit mining and underground mining at Ywain, Gawain, Palsac, Kaye and Ector.			mounted m grab at Ywa	nining with a lechanical cla lin, Gawain, E Launfal, Gare	mshell Excalibur,
	Pipe	US\$/ct	US\$/bcm	Pipe	US\$/ct	US\$/bcm
	Ywain Gwain	250 250	375 215	Ywain Gawain	336 424	407 277
Diamond sale price assumptions	Palsac	250	155	Palomides	344	137
	Launfal	250	155	Launfal	405	134
	Kaye	350	66.5	Kaye	376	82
	Ector	350	66.5	Ector	299	63
				Gareth	276	110
				Excalibur	382	243
Cut-off used	Reported of lower cutof	n 0.95mm an fs	d 1mm	Reported on +5DTC (1.829mm) lower cutoff		
	Grade				Grade	
	Pipe		(ct/BCM)	Pipe		(ct/BCM)
	Ywain		1.50	Ywain		1.21
	Gwain		0.86	Gawain		0.65
Grade estimates	Palsac		0.62	Palomides		0.40
	Launfal		0.62	Launfal		0.33
	Kaye		0.19	Kaye		0.22
	Ector		0.19	Ector		0.21
				Gareth		0.40
				Excalibur		0.64
Processing plant capacity	1.5Mtpa (proposed)			0.38Mtpa (a	actual)	
Maximum Negative Cashflow	~\$57 million		\$4.23 million			
Level of study	Scoping Study		Feasibility Study			

### **2014 GLOBAL MINERAL RESOURCE ESTIMATE**

For a description of the style and nature of mineralisation at the Merlin Diamond Mine please refer to Appendix B.

The 2014 Global Mineral Resource estimate is summarised below in Table 21.

**Table 21 2014 Global Mineral Resource Estimate** 

MINERAL RESOURCE SUMMARY 2014 @ +5DTC lower cut-off					
	INDICATED	INFERRED	TOTAL	GRADE	RESOURCE
PIPE	RESOURCE	RESOURCE	RESOURCE	(cpht)	(Mcts)
	(Mt)	(Mt)	(Mt)		
Ywain <sup>2</sup>	0.07	0.07	0.14	60	0.08
Gawain <sup>2</sup>	0.99	0.60	1.59	31	0.49
Excalibur <sup>1</sup>	0.35	0.23	0.58	29	0.17
Launfal/Launfal North <sup>1</sup>	1.46	1.48	2.94	14	0.40
Palomides/Sacramore <sup>1</sup>	7.24	6.42	13.66	17	2.30
Tristram <sup>2,3</sup>	0.00	0.61	0.61	6	0.04
Kaye <sup>2</sup>	1.11	1.74	2.85	10	0.29
Ector <sup>1</sup>	2.04	2.81	4.85	9	0.46
Gareth <sup>1</sup>	0.12	0.06	0.18	18	0.03
Bedevere <sup>1,3</sup>		0.40	0.40	22	0.09
	13.4	14.4	27.8	16	4.35

<sup>&</sup>lt;sup>1</sup>Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen and reported at +5DTC cut-off

Mt = million tonnes, cpht = carats of diamonds per hundred tonnes, Mcts = millions of carats of diamonds.

Rounding of tonnage and carats may result in computational discrepancies.

The information in this report that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Mr Mike Kammermann, a Competent Person who is a Member of The Australasian Institute of Geoscientists. Mr Kammermann is employed by Axis Consultants Ltd and has been engaged by Merlin Diamonds Ltd to prepare the documentation for the Mineral Resource estimates. Mr Kammermann has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kammermann consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Persons Consent Form for the above Mineral Resource estimate is provided in Appendix A.

### Reasonable Prospects For Eventual Economic Extraction

Various mining methods have been previously used or trialled at the Merlin Diamond Mine. These include open pit mining during the time Ashton and Rio Tinto conducted trial operations between 1998 and 2003 and open pit bulk sampling operations conducted by Merlin in 2006 and 2010.

<sup>&</sup>lt;sup>2</sup>Resource grade based on bulk sample testwork using a +0.8mm slotted bottom screen and reported at +5DTC cut-off

<sup>&</sup>lt;sup>3</sup>Insufficient data available to determine cut-off grade for Tristram and Bedevere pipes.

Hydraulic borehole mining was also trialled at Merlin in October 2013 and still holds significant potential to be used in future operations.

The currently proposed method of extraction is via mechanical clamshell grab mining however further studies are warranted to assess the use of hydraulic borehole mining, open pit or underground methods in the future to access deeper portions of the Mineral Resource.

The 2011 Ore Reserve estimate was based on preliminary engineering studies by AMC Consultants Pty Ltd. The study assessed four open pits at Ywain, Gawain, Palsac and Kaye/Ector with three underground mines at Ywain, Gawain and Palsac. The underground mining costs assumed in this study were used to assess the likelihood of underground mining (sub-level caving) to be used to eventually mine the entire Global Mineral Resource. This preliminary assessment gave an indication, based on predicted diamond growth rates, in which year all kimberlite pipes in the Global Mineral Resource would break even financially so that the term 'eventual economic extraction" could be quantified based on some key assumptions.

## The key assumptions used were:

- A unit cost per tonne of approximately \$60 for large pipes such as Palsac, Kaye and Ector and \$80 for smaller pipes such as Ywain, Gawain, Excalibur, Launfal, Gareth, Bedevere and Tristram. This cost included capital, operating, administration, processing and haulage with a 5% contingency and adjusted from 2011 costs to 2015 at 2.5% CPI p.a.
- The pipes being mined to the deepest portion of the Inferred Mineral Resource category.
- 2015 kimberlite ore values from Table 7 in \$US/BCM were converted to \$US/tonne using fresh kimberlite bulk density numbers.
- The kimberlite ore value in \$US/tonne was then subtracted from the mining cost to assess whether a positive margin existed.
- The costs were inflated at 2.5% compound annual growth rate (CAGR) and diamond prices were inflated at 9% CAGR as per the historical 10 year average growth rate.
- Due to the strong diamond price growth rate (which is discussed in Appendix B) being greater than the cost inflation each pipe eventually becomes economic to extract at a certain time period.

Some pipes such as Ywain, Gawain and Excalibur were shown to be already cashflow positive at 2015 diamond prices. Lower value pipes such as Kaye and Ector become break even in 2024 and 2028 respectively. The entire Global Mineral Resource, according to this preliminary assessment, would have reasonable prospects of eventual economic extraction via sub level caving methods over the next 10-15 years. This assessment is heavily dependent on a consistent 9% growth in diamond prices annually. If a 5% long term growth rate is used then the lowest value pipe of Ector would become break even after 34 years from 2015. It has been assumed that via a combination of mechanical clamshell grab, hydraulic borehole, open pit and underground mining methodologies the Global Mineral Resource has reasonable prospects of economic extraction within the next 15 years.

### **Cut-off assumptions**

The 2014 Global Mineral Resource has been reported at a+5DTC lower screen size cut-off. The Diamond Trading Company sieve #5 (5DTC) has round apertures of 1.829mm diameter and +5DTC sieve size will generally recover diamonds with a minimum weight of approximately 0.05 carats for a single octahedron shaped diamond. The basis for this lower cut-off is primarily economic. The FS analysis showed that at 2015 diamond prices it is not economic to recover these smaller size fractions. This is discussed in detail above in the section titled Diamond Valuation Model – *Final Recovery*.

# Material Changes Since 2010 Mineral Resource Estimate

There have been material changes in the Mineral Resource estimate since it was first reported in 2010. The 2010 estimate is presented below in Table 22.

**Table 22 2011 Global Mineral Resource estimate** 

	Indicated Mineral Resource (Mt)	Inferred Mineral Resource (Mt)	Total	Grade (cpht)	Carats (Mcts)
Southern Cluster					
PalSac <sup>1</sup>	8.09	6.59	14.70	30	4.37
Launfal <sup>3</sup>	1.58	1.70	3.29	25	0.82
Excalibur <sup>3</sup>	0.46	0.31	0.77	34	0.26
Tristram <sup>2</sup>		0.74	0.74	6	0.04
			19.50		5.50
Central Cluster					
Gawain <sup>2</sup>	1.10	0.58	1.66	39	0.66
Ywain <sup>2</sup>	0.08	0.10	0.17	81	0.14
			1.83		0.81
Northern Cluster					
Gareth <sup>3</sup>	0.13	0.14	0.27	22	0.06
Kaye <sup>2</sup>	0.87	2.14	2.98	12	0.36
Ector <sup>3</sup>	1.51	3.47	4.98	7	0.37
Bedevere <sup>4</sup>	0.37	0.14	0.50	21	0.11
			8.7		0.89
TOTAL			30.1	24	7.20

 $<sup>^{1}</sup>$  Resource grade estimated using a +1DTC bottom screen cutoff (approx 0.85mm).

The above 2010 Mineral Resource estimate is extracted from the report entitled "North Australian Diamonds Limited Annual Report 2010 and is available to view at:

http://www.merlindiamonds.com.au/resources/i/docs/annual\_reports/nad\_ar10\_full\_colour.pdf This estimate was reported in accordance with 2004 JORC Code guidelines and has now been superseded by the 2014 Mineral Resource estimate of this report.

The 2014 Mineral Resource estimate reports less total Resource (tonnes and carats) at a lower average grade than the 2010 Mineral Resource estimate. The factors contributing to the difference are discussed below.

 $<sup>^{2}</sup>$  Resource grade estimated using a +1mm slotted bottom screen size.

<sup>&</sup>lt;sup>3</sup> Resource grade based on previous mining operation recovery.

<sup>&</sup>lt;sup>4</sup> Resource grade based on bulk sample test work.

### **Volume and Tonnage**

The 2010 Mineral Resource estimate pipe volumes were determined using ore boundary areas derived in GIS software and a simple volumetric formula:

$$V = \frac{A_1 + A_2}{2}h$$

Where

V = volume between two boundary areas

A1 = upper Boundary Area

A2 = lower Boundary Area

h = vertical distance between two boundary areas

The volumetric model is shown schematically in Figure 15.

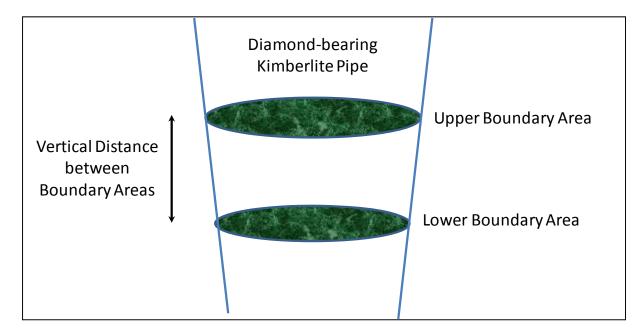


Figure 15 Schematic of volumetric model used in 2011 Resource Estimate

Three dimensional triangular irregular networks (TIN) models of the deposit, often referred to in geological modelling as 'wireframes', were not constructed for the 2010 Mineral Resource estimate.

For the 2014 Mineral Resource estimate the 2011 boundary areas were imported into Micromine software and used to create three dimensional (3D) wireframes. Viewing the models in 3D identified inaccuracies that were not previously identified in 2010. The 2010 inaccuracies resulted from the inability to accurately use non-vertical drill holes and in certain instances the lateral extrapolation of boundary areas beyond what is reasonably acceptable. The adjustments resulted in an overall 7.5% reduction of the volume, which contributed to the tonnage decrease.

The 2010 Mineral Resource estimate used limited data to determine kimberlite bulk densities for the Merlin kimberlite pipes. A detailed bulk density model was established for the 2014 Mineral Resource estimate resulting in different bulk densities being applied to the volume models thus contributing to the difference in Mineral Resource tonnages.

#### Grade

The 2011 Mineral Resource estimate established both Resource grade and Production grade models. The 2011 Mineral Resource grade model was used for the published 2011 Mineral Resource statement. The report noted that the Resource grade model is not representative of what would be achieved from a commercial mining and processing operation due to a number of factors including finer screen size, final recovery techniques, and additional crushing.

The Resource grade models have been amended from the 2011 Mineral Resource estimate. The 2011 Mineral Resource estimate relied on averaging the size frequency distribution (SFD) for the 'micaceous' and 'non-micaceous' pipes and applying this to pipes of each category. The 2014 Mineral Resource estimate has relied on individual pipe data.

The 2011 Launfal model used data from a Palomides sample collected in 2010 to estimate the fine fraction (+5, +3 and -3 DTC). A discrepancy in the data, which increased the grade in the fine fraction, was detected. The original sample data is valid however the possible transcription error has been corrected in the 2014 estimate which resulted in a decrease in the resource grade.

The 2011 Palsac model used data from a Palomides sample collected in 2010 to estimate the fine fraction (+5, +3 and -3 DTC). A discrepancy in the data, which increased the grade in the fine fraction, was detected. The original sample data is valid however the possible transcription error has been corrected in the 2014 estimate which resulted in a decrease in the resource grade.. The effect this has on the grade is clearly evident in Figure 16.

The 2011 Excalibur model estimated the fine fraction recovery (+5, +3 and -3 DTC). This estimate does not appear to be supported with any data or discussion and has not been used for the 2014 resource model, which relies solely on historic production data. This resulted in a decrease in the resource grade.

The average grade decrease from 2011 to 2014 is mostly attributed to decreased grade in the Palsac and Launfal +5, +3, -3 size fractions.

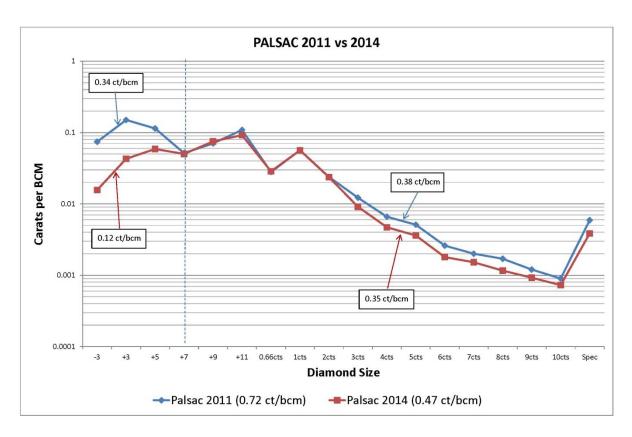


Figure 16 Comparison between Palsac 2011 and 2014

# + 5 DTC Comparison

As discussed in the section above titled Diamond Valuation Model – Final Recovery, recovery of the -5 DTC diamond fraction is not considered economic with the proposed onsite diamond recovery process. Accordingly the 2014 Mineral Resource estimate has been reported at a +5 DTC cut-off.

Table 23 lists the 2011 Mineral Resource Estimate using a +5 DTC cut-off for comparison. This is compared with the 2014 Resource Estimate using a +5 DTC cut-off in Table 21.

The average grade decreased 11% from 18cpht in 2011 to 16cpht in 2014. This is mostly attributed to the decreased grade in the Palsac and Launfal +5 DTC size fraction, which is due to correction of a possible data transcription error in the 2011 estimates.

The 7.5% reduction in volume and tonnes further contributed to a total 18% reduction in total carats from 5.33Mcts in 2011 to 4.35Mcts in 2014.

Table 23 2011 Mineral Resource Estimate at +5DTC lower cut-off

2011 MINERAL RESOURCE ESTIMATE @ 5DTC lower cut-off					
PIPE	INDICATED RESOURCE (tonnes)	INFERRED RESOURCE (tonnes)	TOTAL RESOURCE (tonnes)	GRADE (cpht)	TOTAL CARATS (Mcts)
Ywain <sup>2</sup>	0.08	0.10	0.17	58	0.10
Gawain <sup>2</sup>	1.05	0.61	1.66	31	0.51
Excalibur <sup>1</sup>	0.46	0.31	0.77	29	0.23
Launfal <sup>1</sup>	1.58	1.71	3.29	17	0.56
Palsac <sup>1</sup>	8.11	6.59	14.61	20	2.97
Tristram <sup>2,3</sup>	0.00	0.74	0.74	6	0.04
Kaye <sup>2</sup>	0.85	2.14	2.98	10	0.29
Ector <sup>1</sup>	1.51	3.47	4.98	9	0.47
Gareth <sup>1</sup>	0.13	0.14	0.27	20	0.05
Bedevere <sup>1,3</sup>	0.37	0.14	0.50	21	0.11
TOTAL			30.1	18	5.33

Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen and +5 DTC cut-off.

Rounding of tonnage and carats may result in computational discrepancies.

Yours sincerely,

PETER LEE

**Company Secretary** 

Resource grade based on bulk sample testwork using a +0.8mm slotted bottom screen and +5 DTC cut-off.

<sup>&</sup>lt;sup>3</sup>Insufficient data available to determine cut-off grade for Tristram and Bedevere pipes.

# APPENDIX A – COMPETENT PERSONS CONSENT FORMS FOR THE MINERAL RESOURCE AND ORE RESERVE ESTIMATES

## **COMPETENT PERSONS CONSENT FORM**

Merlin Diamonds Ltd Probable Ore Reserve Estimate

Pursuant to the requirements of ASX Listing Rule 5.6 and clause 9 of the 2012 JORC Code (Written Consent Statement)

### REPORT DESCRIPTION

The Report:

Mechanical Clamshell Grab Mining Feasibility Study, Probable Ore Reserve

Estimate and Mineral Resource Estimate Update

Released by:

Merlin Diamonds Ltd

Relating to the:

Merlin Diamond Mine, Northern Territory, Australia.

Dated:

30 September, 2014

### **STATEMENT**

### I, DAVID TYRWHITT confirm that:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").
- I am a Competent Person as defined by the 2012 JORC Code, having 5 years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Australasian Institute of Mining and Metallurgy.
- I have reviewed the Report to which this Consent Statement applies.
- I am a full time employee of DS Tyrwhitt & Associates and a director of Merlin Diamonds Ltd and have been
  engaged by Merlin Diamonds Ltd to supervise the preparation of the documentation for the Merlin Diamond
  Mine Probable Ore Reserve estimate on which the Report is based, for the period ended 30 September 2014.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Ore Reserves.

### **CONSENT**

I consent to the release of the Report and this Consent Statement by the directors of: **MERLIN DIAMONDS LTD** 

Signed:

AUSII

Dated: 30 8

Being a Member of:

AUSIMM

Membership Number: 102499

Ph.D. (Geology) B.Sc., (Hons), FSEG(USA), FAusIMM, CPGeo,

Witness Sign:

Witness Name and Residence:

CRAIG MICHAEL

# COMPETENT PERSONS CONSENT FORM

# Merlin Diamonds Ltd Mineral Resource Estimate

Pursuant to the requirements of ASX Listing Rule 5.6 and clause 9 of the 2012 JORC Code (Written Consent Statement,

### REPORT DESCRIPTION

The Report:

Mechanical Clamshell Grab Mining Feasibility Study, Probable Ore Reserve

Estimate and Mineral Resource Estimate Update

Released by:

Merlin Diamonds Ltd

Relating to the:

Merlin Diamond Mine, Northern Territory, Australia.

Dated:

30 September, 2014

# STATEMENT

# I, MIKE KAMMERMANN confirm that:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").
- I am a Competent Person as defined by the 2012 JORC Code, having 5 years' experience which
  is relevant to the style of mineralisation and type of deposit described in the Report, and to the
  activity for which I am accepting responsibility.
- . I am a Member of The Australasian Institute of Geoscientists.
- · I have reviewed the Report to which this Consent Statement applies.
- I am a full time employee of Axis Consultants Ltd and have been engaged by Merlin Diamonds Ltd to prepare the documentation for the Merlin Diamond Mine Mineral Resource estimate on which the Report is based, for the period ended 30 September 2014.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources.

## CONSENT

consent to the release of the Report and this Consent Statement by the directors of: **MERLIN DIAMONDS LTD** 

Signed: Mileymore Meran	Dated: 30 September 2014
Being a Member of: AIG	Membership Number: 3932
Witness Sign:	Witness Name and Residence:
MBlo	John Rlake, Wilberton

# **APPENDIX B – TABLE 1 OF THE 2012 JORC CODE**

# Table 1 of the JORC Code, 2012 Edition

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Ashton Mining carried out exploration and delineation drilling using rotary air blast, reverse circulation and diamond core drilling in the early to mid 1990's to discover and define the kimberlite pipes.</li> <li>Reverse circulation drilling was completed to obtain larger samples for grade determination and an early indication on diamond quality.</li> <li>Open pit excavations were then completed in 1996 on a number of pipes to obtain samples of approximately 200 tonnes each for feasibility work. These samples were processed through a 5tph mobile processing plant followed by x-ray and hand sorting to recover the diamonds.</li> <li>Ashton Mining carried out commercial scale trial mining from 1998 to 2003. The mining operation was a conventional open pit mine using excavators and trucks to deliver ore to a production scale dense media separation plant followed by x-ray sorting and acid cleaning of the final product. A total of 2.24 million tonnes of kimberlite was mined and processed to produce approximately 507,000 carats of diamonds.</li> <li>Open pit mining was undertaken by Merlin Diamonds at various times between 2005 and 2010. The ore was excavated using an excavator and trucked to a 15tph dense media separation plant. Magnetic separation and hand sorting was undertaken to recover the diamonds. This produced 35,962 carats of diamonds.</li> <li>Additional reverse circulation, diamond core and wide diameter bucket drilling was completed by Merlin Diamonds' predecessors between 2004 and 2010 to obtain additional information.</li> <li>Carefully measured samples of kimberlite were excavated and treated during 2006 and 2009 for grade determination. These samples were taken from Gawain, Ywain and Kaye pipes.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>A variety of drilling techniques have been used at Merlin mine to recover information on the location and type of ore and the diamond content.</li> <li>Techniques include open hole rotary air blast, reverse circulation of varying diameter using a variety of bits including hammer and tricone, diamond core drilling of varying diameter (BQ, NQ, HQ and 8 inch core) and one metre diameter auger drilling (Calweld Bucket Drilling).</li> <li>The core drilling techniques include double tube and triple tube. Core orientation has been</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>carried out using various techniques on an undetermined percentage of the total number of drill holes. Similarly, down hole surveying was also carried out using various surveying methods (eg Eastman camera, Reflex digital instrument).</li> <li>All drill holes have been collated into a database. A total of 2,154 drill holes have been captured with approximately 412 contributing to the resource statement. The additional holes relate to mine sterilization drilling and exploration within the mining lease.</li> </ul>
Drill sample	3	Reverse Circulation
recovery	<ul> <li>chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Feasibility drilling completed by Ashton Mining between 1994 and 1996 utilised reverse circulation with a tricone bit to obtain kimberlite for processing and recovery of diamonds for determination of diamond content. Sample material passed through a cyclone and was captured in a bulka bag. Water was released through a small slit in the top of the bulka bag, which may have resulted in the loss of some fines. These samples contribute to the Bedevere grade estimate only.</li> <li>Reverse circulation drilling completed by Merlin Diamonds was for delineation purposes and was not used for evaluation of diamond content.</li> <li>Diamond Drilling</li> </ul>
		<ul> <li>Diamond drilling was carried out primarily for determination of geometry and geotechnical testwork. A program of large diameter core drilling was carried out by Ashton Mining during 2000 to obtain ore material from Palomides and Sacramore kimberlite pipes. This material was transported to Argyle Mine for processing and determination of diamond content, which has been considered when determining the grade of the pipes.</li> <li>Wide Diameter Bucket Drilling</li> </ul>
		<ul> <li>A 1m diameter Calweld Bucket Drill Rig was utilized in 2006 to obtain material from Tristram kimberlite pipe. The drilling bucket operates similar to an auger rig and makes a 0.5m cut per 'lift'. Material from the bucket is emptied into a loader bucket then into bulka bags. The volume of the drill hole and the weights of the bulka bags are able to be measured for reconciliation and determination of volume and tonnes recovered.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logs have been captured and entered into a database. Numerous geological codes and code systems have been used. A review of all data allowed the reclassification of all logs into a useable database with a single set of geological codes. The level of detail is sufficient to support appropriate Mineral Resource Classification.</li> <li>A significant portion of diamond drill holes have been photographed.</li> <li>Geotechnical data has been recorded for a number of diamond drill holes. The recording system was established with the assistance of external geotechnical consultants and is thus considered to be of suitable quality for use in resource estimation and mine planning.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No BQ, NQ or HQ diamond core has been used for determination of grade. The large diameter core (8 inch) obtained by Ashton Mining in 2000 was broken up with a sledge hammer over predetermined lengths and transported in 200L drums to Argyle Mine for processing and recovery of diamonds.</li> <li>Reverse circulation drill samples used for determination of diamond content were obtained from a cyclone direct into a bulka bag.</li> <li>Due to the nature and size of the samples there were no duplicate samples collected.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples for determination of diamond content typically comprise large (ie tonnes) samples processed through either a mobile Mark 3 Heavy Media Separation Plant or a larger production scale Dense Media Separation Plant.</li> <li>Due to the nature of the samples no blanks, duplicates or external laboratory checks were undertaken.</li> <li>The efficiency of the process plant and x-ray sorting machine were monitored using a variety of tests including beads and tracer tests as part of industry standard procedures for an operating production plant.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Due to the size of the samples no verification of the samples was undertaken by an alternative facility.</li> <li>No twinned holes were completed.</li> <li>All available primary data has been captured and entered into a database or is located on compact discs, which have been catalogued.</li> </ul>

Criteria		JC	ORC Code explanation	C	ommentary
Location o data points	f	•	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  Specification of the grid system used.  Quality and adequacy of topographic control.	•	The location of drilling collars and mine workings were typically recorded using mine surveying equipment and established survey stations. A review of all data highlighted several drill holes that appeared to be mis-located. These holes were removed from the database. Downhole surveys used either the Eastman Camera or the Reflex digital instrument and are considered of sufficient quality for use in resource estimation. All data is reported in AGD66 Zone 53.
Data spacing and distribution	g	•	Data spacing for reporting of Exploration Results.  Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  Whether sample compositing has been applied.		The data spacing is variable between kimberlite pipes and within individual pipes. Accordingly the Mineral Resource classification varies from Inferred to Indicated. There are no Measured Resources.  No sample compositing has been applied and is not applicable.
Orientation of data ii relation to geological structure		•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	•	For this Resource Estimation the kimberlite pipes are regarded as a bulk ore deposit. Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole.  The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.  There are no definable zones or facies of high (or low) grade material, which could be or were deliberately targeted during drilling.
Sample security		•	The measures taken to ensure sample security.	•	During mining operations industry standard security protocols were in place.
Audits o reviews	r	•	The results of any audits or reviews of sampling techniques and data.	•	A Merlin Resource Estimate for the Merlin Project was completed in 2011 by Mr Tom Reddicliffe.  Subsequent to this report a further review of drilling data has been undertaken by two inhouse personnel (Research Manager and Exploration Manager) resulting in the compilation of an updated database and volume, tonnes and grade model for each kimberlite pipe.  The Company's Database Manager imported the drilling data into Micromine and validated the database to identify errors, these were corrected prior to re-performing the validation.

# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

	n the preceding section also apply to this section.)	
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The resource is contained within mining lease ML1154 in the Northern Territory, Australia. The lease was granted in 1998 for a period of 25 years. It is held by Merlin Operations Pty Ltd, which is a 100% owned subsidiary of Merlin Diamonds Limited.</li> <li>The lease is located on Special Purpose Crown Lease held by Wardell Nominees Pty Ltd on behalf of Ashton Mining Limited.</li> <li>A Native Title Agreement with local traditional owners includes a minimum annual payment of \$10,000, and a Nett Profit Interest to be paid annually at the rate of 1% on total profit &lt;\$10M and scaling up to 5% above \$40M.</li> <li>The project is subject to a Royalty Agreement with Mr R.M. Biddlecombe. A 0.75% royalty is payable to prospector Mr R.M. Biddlecombe who was the original holder of EL6424, which preceded the application for a mining lease, based upon diamond sales.</li> <li>Merlin acquired the mining lease under a Sale and Purchase Agreement with Ashton Mining. The agreement included a buy-back option and milestone payments. Legend International Holdings, Inc purchased the buy-back option and milestone payments from Ashton Mining. Legend has the option to purchase a 51% legal and beneficial interest where the mineral resource identified in a Pre-Feasibility Study has an in-situ value of greater than \$ 1 billion. The milestone payments include a payment of \$200,000 on completing the first bulk sample of a new kimberlite pipe of at least 200 tonnes, and a \$100,000 payment for each subsequent and discrete bulk sample of kimberlite of at least 200 tonnes from additional kimberlite pipes where diamond grade is in excess of 10 carats per 100 tonnes. A \$2,000,000 payment on the commissioning of the first mine within the tenement was paid to Legend in 2013. An uplift factor, due to CPI since 2004, was also applicable to this payment to Legend but as yet has not been paid. This outstanding amount is \$550,868.49.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Discussed in preceding sections.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The deposit is a hard rock diamond deposit.</li> <li>The ore rock type is kimberlite, which is an ultramafic volcanic rock.</li> <li>The geological interpretation is based on a standard kimberlite emplacement model, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusives that maintain a predictable geometry with depth. Drilling has demonstrated this to be the case.</li> <li>Kimberlites originate from the upper mantle at depths greater than 100km below surface and entrain diamonds during ascent. Kimberlites generally occur in clusters within a larger field, which is the case at the Merlin deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>The kimberlites at the Merlin deposit include a total of fifteen pipes, which occur in several clusters within a larger field approximately 10km by 5km. The pipes have been shown to vary in size, kimberlite type, and diamond content.</li> <li>The pipes intrude the Neo-Proterozoic Bukalara Formation and have been dated as Devonian based on K-Ar and Rb-Sr dating of phlogopite.</li> <li>The pipes are representative of the diatreme facies with the uppermost crater facies having been eroded between emplacement and the Cretaceous.</li> <li>A total of 2,154 holes have been drilled within the mining lease. Of these a total of 412 holes have been used for the resource estimation. The additional holes include mine sterilization and exploration drilling.</li> <li>A table provided in "Appendix C" reports all drill holes used to define the kimberlite pipe geometry used in the Mineral Resource estimation. Some drill holes report no kimberlite intersections however these were material in defining the kimberlite pipe extents.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>The diamond grade is predominantly based on recovery grades from historic production and is sensitive to liberation issues, plant recovery efficiency, and final recovery techniques used. The historic production grades are categorised by number of stones and weight (carats) according to diamond size (size frequency distribution). The historic production grades are considered a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology, not a measure of total diamond content. Where available the finer fraction of the production size frequency distributions were adjusted based on drill core assay and bulk samples to better represent the finer fraction diamond content of the Resource.</li> <li>Cut-off grades are not used in the reporting of Exploration Results however previous bulk sampling and trial mining have used a lower slotted screen size of +0.8mm and +0.95mm respectively. The Mineral Resource has been reported at a lower screen size cut-off of +5DTC.</li> <li>Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth. There is no evidence to suggest this assumption is invalid.</li> </ul>
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Drilling data for estimation of the diamond Mineral Resource is used only to find the intersection points between waste country rock (generally Bukalara Sandstone) and the kimberlite pipe. The entry and exit points of the drill hole into and out of the kimberlite ore body are used as points to define the three dimensional shape of the pipe. Mineralisation widths and intercepts are not used or calculated when estimating the diamond Mineral Resource.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Detailed cross sections, plans and drillhole information are included in "Appendix C".
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Sufficient information has been reported to avoid misleading reporting of results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Merlin Diamonds has an active exploration program over the mining lease with over 80 targets identified from geophysical survey.</li> <li>These targets represent potential new kimberlites.</li> <li>A geophysics program using handheld electromagnetic instrumentation is currently being undertaken at Merlin to provide higher resolution of anomalies identified in earlier aerial geophysical surveys.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main</li> </ul>	<ul> <li>No further exploration work on the currently defined kimberlite pipes is planned. A feasibility study has been completed for a mechanical grab mining operation on 8 of the existing 9 open pits.</li> </ul>

Criteria	JORC Code explanation	Commentary
	geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

# **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>During 2013 all available data was reviewed and compiled into a database by an in-house Research Manager. The data was sourced from numerous current and historic databases and, where possible, was checked against the original paper drilling logs. The database was peer reviewed by the Exploration Manager.</li> <li>The Company's Database Manager imported the drilling data into Micromine and validated the database to identify errors, which were then corrected prior to performing the validation again. The predominant source of error was the differing georefencing systems employed at various times.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Site visits are undertaken on a regular basis by the Competent Person (Mike Kammerman for the Mineral Resource estimate) as part of their normal job function.</li> <li>No material issues have been identified in relation to the resource estimation.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological interpretation is based on a standard kimberlite emplacement model, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusive that maintain a predictable geometry with depth.</li> <li>Drilling has demonstrated this to be the case.</li> <li>The pipe geometry has been determined using surface expression, open pit excavations, and drilling data.</li> <li>The kimberlites have intruded flat lying sandstones and dolomitic sediments such that the boundaries are easily discernible by drilling or pit mapping allowing a high level of confidence in distinguishing the pipe boundary at each data point.</li> <li>The number of data points varies between and within individual pipes and the resource is classified accordingly as Inferred or Indicated.</li> <li>There are no resources in the Measured category.</li> <li>Drilling has defined the pipes to various depths with a varying degree of confidence.</li> <li>A higher degree of confidence is obtained closer to the surface where a greater number of data points exist and the density is consistent with the historically mined kimberlite. This has allowed the resource in the upper weathered kimberlite to be classified as Indicated.</li> <li>The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events.</li> <li>Accurately defining the facies variation within each pipe is not possible with the current drilling information.</li> <li>Previous mining operations considered each pipe as a bulk facies and the grade data</li> </ul>

Criteria	JORC Code explanation	Commentary
Dimensions	The extent and variability of the Mineral	<ul> <li>pertains to the pipe as a whole.</li> <li>The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions.         <ul> <li>Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies,</li> <li>The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies; and</li> <li>The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density.</li> </ul> </li> <li>There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.</li> <li>The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.</li> <li>The Mineral Resource includes data from Ywain, Gawain, Kaye, Ector, Gareth, Bedevere,</li> </ul>
Dimensions	Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>Tristram, Palomides, Sacramore, Launfal, Launfal North, and Excalibur kimberlite pipes. Palomides and Sacramore coalesce to form Palsac pipe and are reported as one pipe.</li> <li>Launfal North is reported separately for Local Resources and is combined with Launfal for the Global Resource summary.</li> <li>The pipes are located in clusters spread over an area approximately 7 km by 2km. See Appendix C.</li> <li>Drilling has defined the pipes to various depths and to a varying degree of confidence.</li> <li>The Resource has been defined down to between 54m and 665m below existing pit floors, which is approximately 145m to 735m below natural surface.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other</li> </ul>	<ul> <li>Some pit mapping has been used where available and relevant.</li> <li>Boundary contacts are inferred between upper and lower contacts and it is assumed that the overall pipe boundary extents maintain their shape subject to evidence to the contrary.</li> <li>In general the pipes are vertically plunging and slightly diminish in gauge with depth.</li> <li>With depth there are fewer drill intercepts and confidence in the geometry decreases.</li> <li>To establish pipe extents, the established pipe extent in the pit floor was projected 5m downwards along the plunge of the pipe. If the projected extent corresponded with drill data at the location, the extent is maintained. If it doesn't correspond the extent is amended</li> </ul>

Criteria	JORC Code explanation	Commentary
	non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>A volume is calculated from the wireframe using Micromine software.  Bulk Density Determination</li> <li>A bulk density is assigned to allow a tonnage to be calculated for resource volumes that represent specific domains (eg density, weathering, resource category).</li> <li>Refer to the 'Bulk Density' section for how the density is determined.  Moisture Determination</li> <li>See below.  Weathering Determination</li> <li>The mineralogy of the Merlin kimberlites includes predominantly olivine and phlogopite. When exposed to water particularly near surface, the minerals weather to clay. This results in a decrease in both bulk density and rock strength.</li> <li>Pit mapping and drilling data indicates the margins of the pipes at surface and depth are more weathered however there is insufficient information to model the lateral variation.  O</li> <li>Weathering domains were defined using a variety of data including field geotechnical logs (rock strength, weathering), core photography, and laboratory determinations of Uniaxial Compressive Strength (UCS).</li> <li>Field geotechnical logs recorded an estimate of rock strength (UCS) using the following table.</li> </ul>

Criteria	JORC Code explanation	Comme	entary		
			F	FIELD ESTIMATION OF ROCK STRENGTH	
		Gra de	Description	Field Identification	Approx. Range of Uniaxial Compressive Strength (MPa)
		S1	Very soft clay	Easily penetrated several cm's by fist	<0.025
		S2	Soft clay	Easily penetrated several cm's by thumb	0.025-0.05
		S3	Very soft clay	Easily penetrated several cm's by fist with moderate effort	<0.026
		S4	Stiff clay	Readily indented by thumb but penetrated only with great effort	0.10-0.25
		S5	Very stiff clay	Readily indented by thumbnail	0.25-0.5
		S6	Hard clay	Indented with difficulty by thumbnail	>0.5
		R0	Extremely weak rock	Indented by thumbnail	0.25-1.0
		R1	Very weak rock	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	1.0-5.0
		R2	Weak rock	Can be peeled with a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	5.0-25
		R3	Medium strong rock	Cannot be scraped or peeled with a pocket knife, specimen can be fracture with single firm blow of geological hammer	25-50
		R4	Strong rock	Specimen requires more than one blow of geological hammer to fracture it	50-100
		R5	Very strong rock	Specimen requires many blows of geological hammer to fracture it	100-250
		R6	Extremely strong rock	Specimen can only be chipped with geological hammer to fracture it. Rock rings under hammer.	>250
			ific criteria. For the	thered' and 'fresh' is subjective and thus need the purpose of this report the following criterial ed UCS<25 MPa	

o Fresh UCS>25 MPa

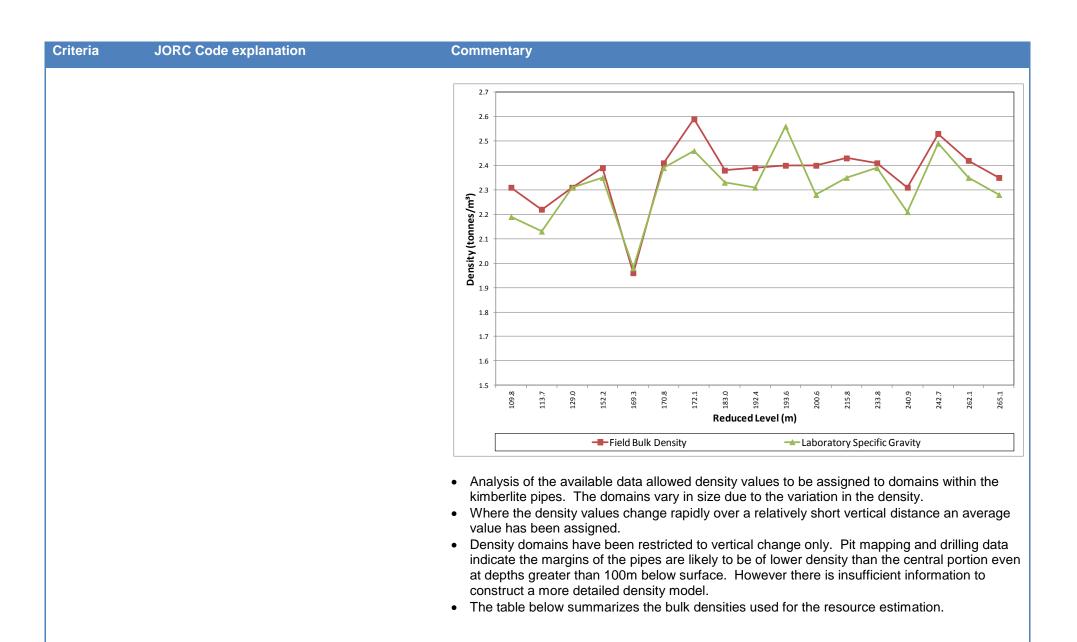
iteria	JORC Code explanation	Commentary
		<ul> <li>Where available the laboratory UCS results were compared with the Field UCS estimation. The resulting chart below showing good correlation between the Field UCS estimation categories and median results from the Laboratory UCS tests</li> <li>This provides a high level of confidence that the Field UCS estimations could be used to model the weathered zone.</li> </ul>
		70 (value) 10 (value)
		5-25 25-50 50 50-100 UCS from Field Estimate (MPa)
		<ul> <li>The UCS estimation data was used to define a Weathered and a Fresh domain based on 25MPa cut-off.</li> <li>Where no geotechnical logging data exists the UCS was estimated using a combination of geological logging descriptions, density data and core photography.</li> <li>A summary table of the weathering domains is given below.</li> </ul>

Criteria	JORC Code explanation	Commentary				
		PIPE	RL		Мра	
			From	То		
		Palsac	115	60	<25	
			60	-550	>25	
		Ywain	150	50	<25	
			50	-20	>25	
		Gawain	133	80	<25	
			80	-200	>25	
		Excalibur	110	20	<25	
			20	-40	>25	
		Launfal	86	50	<25	
			50	-250	>25	
		Bedevere	135	25	<25	
			25	-40	>25	
		Gareth	94	70	<25	
			70	40	>25	
		Kaye	150	80	<25	
			80	0	>25	
		Ector	155	80	<25	
			80	0	>25	
		Tristram	160	80	<25	
8.6 - 1 - 1		<del>-</del>	80	40	>25	
Moisture	Whether the tonnages are estimated of dry basis or with natural moisture, and method of determination of the moistur content.	the  • Due to the moisture volume variation in  • Most types exposed to exposed to at the mark	<ul> <li>The tonnages are estimated with natural moisture.</li> <li>Due to the variable lateral and vertical weathering of the kimberlite both the density and the moisture vary considerably. The Resource model is based on volumes with grades determined as carats per BCM and accordingly the Resource (carats) is not affected by any variation in moisture content.</li> <li>Most types of kimberlite at Merlin dry very quickly at the surface provided the ore is not exposed to seasonal rainfall.</li> <li>Pit mapping and drilling data indicate the moisture content will be higher near the surface and at the margins of the pipes at surface and depth.</li> <li>Moisture data for a selection of pit and drill samples was compiled and reviewed. From this</li> </ul>			

Criteria	JORC Code explanation	Commentary
		<ul> <li>review it is concluded that;</li> <li>Moisture data determined in the field for a selection of pit samples collected in the weathered profile returned a median value of 9%.</li> <li>Moisture data determined in the field for 126 drill hole samples returned a median value of 4.6%.</li> <li>Moisture data determined by laboratory methods for 35 drill hole samples returned a median value of 4.5%.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>The financial model in the feasibility study has shown that recovery of the -5DTC size fraction is not economic therefore the diamond Mineral Resource is reported at both a +5 DTC lower screen size cut-off and no cut-off.</li> <li>When the Mineral Resource is reported including the -5DTC size fractions (i.e. no cut-off) a bottom screen size of +0.8mm and +0.95mm has been used for bulk sampling and trial mining samples used for the Resource Estimation.</li> </ul>
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Various mining methods have been previously used or trialled at the Merlin Diamond Mine. These include open pit mining during the time Ashton and Rio Tinto conducted trial operations between 1998 and 2003 and open pit bulk sampling operations conducted by Merlin in 2006 and 2010. Hydraulic borehole mining was also trialled at Merlin in October 2013 and still holds significant potential to be used in future operations.</li> <li>The currently proposed method of extraction is via mechanical clamshell grab mining however further studies are warranted to assess the use of hydraulic borehole mining, open pit or underground methods in the future to access deeper portions of the Mineral Resource.</li> <li>The 2011 Ore Reserve estimate was based on preliminary engineering studies by AMC Consultants Pty Ltd. The study assessed four open pits at Ywain, Gawain, Palsac and Kaye/Ector with three underground mines at Ywain, Gawain and Palsac. The underground mining costs assumed in this study were used to assess the likelihood of underground mining (sub-level caving) to be used to eventually mine the entire Global Mineral Resource. This preliminary assessment gave an indication, based on predicted diamond growth rates, in which year all kimberlite pipes in the Global Mineral Resource would break even financially so that the term 'eventual economic extraction' could be quantified based on some key assumptions.</li> <li>The key assumptions used were:         <ul> <li>A unit cost per tonne of approximately \$60 for large pipes such as Palsac, Kaye and Ector and \$80 for smaller pipes such as Ywain, Gawain, Excalibur, Launfal, Gareth, Bedevere and Tristram. This cost included capital, operating, administration, processing and haulage with a 5% contingency and adjusted from 2011 costs to 2015 at 2.5% CPI p.a.</li> <li>The pipes being mined to the deepest portion of the Inferred Mineral Resource category.</li> <li>2015 kimberlite ore values in \$US/BCM were converted to \$US/</li></ul></li></ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>kimberlite bulk density numbers.</li> <li>The kimberlite ore value in \$US/tonne was then subtracted from the mining cost to assess whether a positive margin existed.</li> <li>The costs were inflated at 2.5% compound annual growth rate (CAGR) and diamond prices were inflated at 9% CAGR as per the historical 10 year average growth rate.</li> <li>Due to the strong diamond price growth rate (which is discussed in other sections of this Appendix B) being greater than the cost inflation each pipe eventually becomes economic to extract at a certain time period.</li> <li>Some pipes such as Ywain, Gawain and Excalibur were shown to be already cashflow positive at 2015 diamond prices. Lower value pipes such as Kaye and Ector become break even in 2024 and 2028 respectively. The entire Global Mineral Resource, according to this preliminary assessment, would have reasonable prospects of eventual economic extraction via sub level caving methods over the next 10 – 15 years. This assessment is heavily dependent on a consistent 9% growth in diamond prices annually. If a 5% long term growth rate is used then the lowest value pipe of Ector would become break even after 34 years from 2015. It has been assumed that via a combination of mechanical clamshell grab, hydraulic borehole, open pit and underground mining methodologies the Global Mineral Resource has reasonable prospects of economic extraction within the next 15 years.</li> </ul>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>The Merlin deposit is located on a mining lease that operated as a commercial scale diamond mine between 1998 and 2003.</li> <li>Site specific diamond liberation and recovery factors are known due to &gt; 2 million tonnes of ore having been previously processed.</li> <li>Diamond grades are reported as recoverable grades through a plant similar to that currently existing on site at the Merlin Diamond Mine.</li> <li>Feasibility study analysis has shown that recovery of the -5DTC size fraction is not economic therefore the Mineral Resource has been reported at a +5DTC cut-off and the diamonds above this screen size are considered to have reasonable prospects for eventual economic extraction.</li> </ul>
Environmen- tal factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the	<ul> <li>The Merlin deposit is located on a mining lease that operated as a commercial scale diamond mine between 1998 and 2003.</li> <li>The mining lease operates under an existing approved Mining Management Plan, which addresses all environmental factors pertaining to past, present and proposed mining lease activities.</li> </ul>

Criteria	JORC Code explanation	Commentary
	mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Due to the variably weathered nature of the kimberlite pipes the bulk density generally increases with depth as the kimberlite becomes less weathered. A database of bulk density determinations was compiled using;         <ul> <li>Field bulk density determinations of pit samples</li> <li>Field bulk density determinations of drill samples</li> <li>Laboratory specific gravity determinations of drill samples</li> </ul> </li> <li>The methodology used to determine and assign a bulk density to the volumes is detailed below.</li> <li>Field bulk densities were recorded for in-pit samples obtained during mining operations and drill core.</li> <li>The density of in-pit samples was determined using the weight in air and water method. Between 20 and 40 samples per flitch were collected and weighed. These results represent 'wet' bulk densities.</li> <li>Drill core was used to determine field bulk densities using either the volume method or the weight in air and water method.</li> <li>For the volume method a length of core of known diameter was cut and weighed using calibrated scales. The weight of core was typically between 1 and 3 kilograms. The core was cut and weighed at the time it was drilled and represents a 'wet' field bulk density.</li> <li>All density measurements have been entered into a database.</li> <li>Laboratory specific gravity determinations were obtained for a selection of drill core samples and represent 'dry' bulk densities, which allow a comparison to be made with the field bulk density determinations.</li> <li>The field bulk densities (wet) are on average 3% higher than the laboratory densities (dry), which is attributed to the moisture content.</li> <li>The chart below shows a consistent correlation between the kimberlite field bulk densities (wet) and laboratory specific gravities (dry) at various depths in the Palomides pipe. This provides confidence in adopting the available field densities over the full</li></ul>



Criteria	JORC Code explanation	Commentary			
		PIPE	RL		Bulk
		PIPE	From (mRL)	To (mRL)	Density (t/m3)
		Palsac	115	60	2.31
			60	-200	2.4
			-200	-550	2.5
		Launfal	86	50	2.36
			50	-50	2.46
		Excalibur	110	20	2.03
			20	-40	2.49
		Gawain	140	50	2.06
			80	-200	2.47
		Ywain	150	50	2.1
			50	0	2.4
			0	-20	2.75
		Gareth	94	70	2.1
			70	40	2.38
		Ector	155	80	2.04
			80	0	2.38
		Kaye	150	80	1.80
			80	20	2.38
		Bedevere	135	40	2.03
			40	-40	2.64
		Tristram	160	80	2.03
			80	0	2.51

Criteria	JORC Code explanation	Commentary								
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidenc categories.</li> </ul>	• The Global I	Mineral Resource	e Estimate is sum	marized below.					
	<ul> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in</li> </ul>	GLOBAL RESC	GLOBAL RESOURCE (no cutoff)							
confidence in ton reliability of input continuity of geol		PIPE	INDICATED (tonnes)	INFERRED (tonnes)	TOTAL (tonnes)	GRADE (cpht)	CARATS			
	continuity of geology and metal values, quality, quantity and distribution of the date	yWAIN <sup>2</sup>	71,505	66,548	138,054	84	115,839			
	<ul> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	·	992,359	603,661	1,596,020	37	590,808			
		EXCALIBUR <sup>1</sup>	347,541	232,427	579,968	30	174,601			
		LAUNFAL1	1,458,763	1,480,492	2,939,254	16	456,126			
		PALSAC <sup>1</sup>	7,240,219	6,421,975	13,662,194	15	2,632,360			
		TRISTRAM <sup>2</sup>		606,475	606,475	6	36,059			
		KAYE <sup>2</sup>	1,114,840	1,737,401	2,852,241	13	364,326			
		ECTOR <sup>1</sup>	2,038,295	2,813,993	4,852,288	10	479,933			
		GARETH <sup>1</sup>	118,723	62,113	180,835	19	34,771			

BEDEVERE<sup>2</sup>

402,754

27,810,083

22

18

87,324

4,972,146

402,754

<sup>&</sup>lt;sup>1</sup>Resource grade based on previous mining operation recovery using a +0.95mm slotted bottom screen <sup>2</sup>Resource grade based on bulk sample testwork using a +0.8mm slotted bottom screen. Rounding of tonnage and carats may result in computational discrepancies.

Criteria	JORC Code explanation	Commentary					
		GLOBAL RESOU	JRCE (5 DTC cuto	off)			
		PIPE	INDICATED (tonnes)	INFERRED (tonnes)	TOTAL (tonnes)	GRADE (cpht)	CARATS
		YWAIN <sup>2</sup>	71,505	66,548	138,054	60	83,324
		GAWAIN <sup>2</sup>	992,359	603,661	1,596,020	31	493,086
		EXCALIBUR <sup>1</sup>	347,541	232,427	579,968	29	168,675
		LAUNFAL <sup>1</sup>	1,458,763	1,480,492	2,939,254	14	398,742
		PALSAC <sup>1</sup>	7,240,219	6,421,975	13,662,194	17	2,304,714
		TRISTRAM <sup>2,3</sup>		606,475	606,475	6	36,059
		KAYE <sup>2</sup>	1,114,840	1,737,401	2,852,241	10	292,742
		ECTOR <sup>1</sup>	2,038,295	2,813,993	4,852,288	9	456,929
		GARETH <sup>1</sup>	118,723	62,113	180,835	18	32,294
		BEDEVERE <sup>2,3</sup>		402,754	402,754	22	87,324
					27,810,083	16	4,353,888
		being reported at a language of tonna language o	based on bulk sa +5DTC screen size available to determ age and carats may confidence in the d Inferred. The p ctable geometry. tegory. nsity data points to tonnages. mberlites contain	ample testwork use only. ine a +5DTC cut-control of the result in computation volume of the resipes themselves. There are insufficially that we been used in various kimberly.	ing a +0.8mm slot off grade for Tristran ational discrepancie esource is sufficiel are easily discern ficient data points to enable the Indi ite facies, which re various facies ess	n and Bedevens.  Int to classify the hible by drilling to meet the ficated and Inference to the present vary	e the resource as g and generally Measured ferred volumes to ving rock types
		<ul><li>intrusive ever</li><li>Accurately de information.</li><li>Previous min</li></ul>	nts. efining the facies	variation within on sidered each p	each pipe is not p	ossible with t	he current drillin

Criteria	JORC Code explanation	Commentary
		<ul> <li>The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.</li> <li>The diamond grade is predominantly based on plant recovered grades and is sensitive to liberation issues, plant recovery efficiency, and final recovery techniques used.</li> <li>The resource estimate is listed with no cutoff and with a 5 DTC cutoff.</li> <li>The resource estimation grades are based on bulk samples that were processed with a lower slotted screen size of +0.8mm and +0.95mm.</li> <li>Detailed diamond grade models for each pipe have been determined based on the contribution to grade of various diamond size fractions.</li> <li>The level of confidence in the grade for the drilling data is lower than for the mining data and is reflected in the resource category (eg Bedevere and Tristram are Inferred only).</li> <li>A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth.</li> <li>The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions</li> <li>Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies.</li> <li>The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies.</li> <li>The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density.</li> <li>There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.</li> <li>Local Tonnages are detailed below.</li> </ul>

Criteria	JORC Code explanation	Commentary							
	<del></del>								
		LOCAL RESOU	RCES						
		PIPE	RL from	RL to	Volume	Density	Tonnes	Category	Weathering
		YWAIN	150	50	34,050	2.10	71,505	INDICATED	Weathered
			50	0	18,849	2.40	45,237	INFERRED	Fresh
			0	-20	7,750	2.75	21,311	INFERRED	Fresh
		GAWAIN	133	80	151,882	2.06	312,877	INDICATED	Weathered
			80	-40	275,094	2.47	679,482	INDICATED	Fresh
			-40	-200	244,397	2.47	603,661	INFERRED	Fresh
		EXCALIBUR	100	20	171,202	2.03	347,541	INDICATED	Weathered
			20	-40	93,344	2.49	232,427	INFERRED	Fresh
		LAUNFAL	86	50	127,509	2.36	300,920	INDICATED	Weathered
			50	-80	468,753	2.46	1,153,132	INDICATED	Fresh
			-80	-250	601,826	2.46	1,480,492	INFERRED	Fresh
		LAUNFAL	86	70	2,243	2.10	4,710	INDICATED	Weathered
		NORTH							
		PALSAC	115	60	428,376	2.31	989,549	INDICATED	Weathered
			60	-200	2,604,446	2.40	6,250,670	INDICATED	Fresh
			-200	-550	2,568,790	2.50	6,421,975	INFERRED	Fresh
		TRISTRAM	155	80	186,953	2.03	379,514	INFERRED	Weathered
			80	40	90,423	2.51	226,961	INFERRED	Fresh
		KAYE	150	80	619,356	1.80	1,114,840	INDICATED	Weathered
			80	0	730,000	2.38	1,737,401	INFERRED	Fresh
		ECTOR	155	80	999,164	2.04	2,038,295	INDICATED	Weathered
			80	0	1,182,350	2.38	2,813,993	INFERRED	Fresh
		GARETH	94	70	41,496	2.10	87,142	INDICATED	Weathered
			70	60	13,269	2.38	31,581	INDICATED	Fresh
			60	40	26,098	2.38	62,113	INFERRED	Fresh
		BEDEVERE	135	25	143,848	2.03	292,011	INFERRED	Weathered
			25	-40	41,948	2.64	110,743	INFERRED	Fresh

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>The 2011 Mineral Resource Estimate was reviewed by the Exploration Manager.</li> <li>The outcome of this review was the amendment of the pipe geometry and bulk density and hence the overall volume and tonnes contributing to the Resource Estimate.</li> <li>Bedevere was also moved from a combination of Indicated and Inferred to solely Inferred.</li> <li>The determination of grade was also reviewed and amended as part of this process.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events.</li> <li>Accurately defining the facies variation within each pipe is not possible with the current drilling information.</li> <li>Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole.</li> <li>The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.</li> <li>A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth.</li> <li>The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions         <ul> <li>Diamonds are distributed reasonably homogenously throughout any particular kimberlite facies.</li> <li>The size/frequency distribution of the diamonds will be constant for any particular kimberlite facies.</li> <li>The diamond grade and quality at the base of the open pits will continue at depth provided there is no material change in kimberlite lithology and density.</li> </ul> </li> <li>There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.</li> </ul>

# **Section 4 Estimation and Reporting of Ore Reserves**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Ore Reserve update is based on the weathered Indicated Resource with a +5DTC recovery cutoff from the 2014 Merlin Diamonds Mineral Resource Estimate (MRE).</li> <li>A Recoverable Resource was derived from the weathered Indicated Resource. The weathered Indicated Resource and Recoverable Resource for each pipe is listed in the Table below.</li> <li>The Recoverable Resource (volumes and tonnes) differ from the weathered Indicated Resource due to the allowance of a 0.5m thick unmineable skin and the selectability of the clamshell grab.</li> <li>The selectability of the clamshell grab is based on the following criteria: <ul> <li>The excavation commences on a mineable surface. This is interpreted within the design as a surface that is flat or near flat to enable a mechanical grab to rest near-level when excavating.</li> <li>In the absence of any final designs the base of the pits are considered to be near flat.</li> <li>Berms are considered a flat surface on which mining can commence.</li> <li>The initial footprint is the maximum footprint that forms the basis of the design. The mechanical grab cannot mine around corners, as such all designs are cylindrical to an inverted frustum of a cone.</li> <li>The design has been created to account for the positioning of the in-pit equipment and in some instances to mitigate the interaction of this equipment with known in-pit instabilities.</li> <li>Only material considered to be mineable with the mechanical grab within the weathered portion of the Global Indicated Mineral Resource has been included in the Recoverable Resource grades (ct/BCM and ct/t) differ from the weathered Indicated Resource for Ywain, Gawain and Palomides (PalSac) due to the modification of the resource size frequency distribution (SFD). For the Resource estimate, the finer fraction of Ywain, Gawain and Palomides (PalSac) due to the modification of the resource assays. This resulted in greater volumes of finer fraction diamonds (+5DTC) than historically recovered by a commercial processing pl</li></ul></li></ul>

Criteria	JORC Code explanation	Commentary					
		PIPE	Volume (BCM)	Density (t/m³)	Resource (tonnes)	Grade (ct/BCM)	Grade (ct/t)
		YWAIN <sup>2</sup> INDICATED RESOURCE	34,050	2.10	71,505	1.37	0.65
		YWAIN RECOVERABLE RESOURCE	28,245	2.10	59,315	1.21	0.58
		GAWAIN <sup>2</sup> INDICATED RESOURCE	151,882	2.06	312,877	0.73	0.36
		GAWAIN RECOVERABLE RESOURCE	129,800	2.06	267,388	0.65	0.32
		EXCALIBUR <sup>1</sup> INDICATED RESOURCE	171,202	2.03	347,541	0.64	0.31
		EXCALIBUR RECOVERABLE RESOURCE	123,074	2.03	249,841	0.64	0.31
		LAUNFAL <sup>1</sup> INDICATED RESOURCE	127,509	2.36	300,920	0.33	0.14
		LAUNFAL RECOVERABLE RESOURCE	53,341	2.36	125,886	0.33	0.14
		PALSAC <sup>1</sup> INDICATED RESOURCE	428,376	2.31	989,549	0.41	0.18
		PALOMIDES RECOVERABLE RESOURCE	169,800	2.31	392,238	0.40	0.17
		KAYE <sup>2</sup> INDICATED RESOURCE	619,356	1.80	1,114,840	0.22	0.12
		KAYE RECOVERABLE RESOURCE	577,177	1.80	1,038,919	0.22	0.12
		ECTOR <sup>1</sup> INDICATED RESOURCE	999,164	2.04	2,038,295	0.21	0.10
		ECTOR RECOVERABLE RESOURCE	895,530	2.04	1,826,881	0.21	0.10
		GARETH <sup>1</sup> INDICATED RESOURCE	41,496	2.10	87,142	0.40	0.19
		GARETH RECOVERABLE RESOURCE	38,433	2.10	80,710	0.40	0.19
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the Ore R Tyrwhitt &amp; Associates. Dr Tyrwhitt has estimation of the Probable Ore Reservemployees of Merlin Diamonds Ltd. D estimation and preparation of the docur normal job function. No material issues</li> </ul>	supervised yes which h r Tyrwhitt is mentation ha	the preparas been of satisfied ave had nu	ration of the conducted by that the per imerous site	e document y former ar sons condu visits as pa	ation and durrent ucting the
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least</li> </ul>	<ul> <li>A comprehensive Feasibility Study has level of study meets the criteria for Bank</li> <li>The Feasibility Study presents mine improvements that are technically achie</li> </ul>	ing Finance plans, time	and Fatal -and-motio	Flaw Revievon studies a	w by externa	al parties.

Criteria	JORC Code explanation	Commentary
	Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	All material modifying factors have been considered in determining the Ore Reserve.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>There is no cut-off 'grade' adopted for the Ore Reserve, however a particle size recovery cut-off (screen size) has been employed to reflect the economic diamond recovery of the processing plant.</li> <li>There is no upper particle size recovery cut-off applied to the Ore Reserve. The proposed processing plant grizzly rejects are stockpiled for batch processing through a small crusher currently at site. Accordingly the Ore Reserve assumes no upper cut-off parameter and all ore mined is processed through the plant.</li> <li>A lower cut-off particle size recovery was assessed in the financial model. Recovery of diamonds less than 5DTC was found to be economically unviable with the current recovery circuit and processing plant. The Diamond Trading Company sieve #5 (5DTC) has round apertures of 1.829mm diameter and +5DTC sieve size will generally recover diamonds with a minimum weight of approximately 0.05 carats for a single octahedron shaped diamond. The recovery of diamonds less than 5DTC may become economic in the future depending on diamond price movements and /or a modified recovery process.</li> </ul>
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul>	<ul> <li>Appropriate Modifying Factors were applied to the Recoverable Resource for conversion to the Ore Reserve. The Modifying factors include:         <ul> <li>Mineable Shape – a pragmatic mining shape based upon a flat floor within the existing pit in Kimberlite only for mechanical grab accessibility and a vertical shape being the only possible geometry for mining</li> <li>A non-mineable 'skin' of 0.5m within the MRE boundaries has been chosen due to the shape and geometry of the mechanical grab and pipe.</li> <li>Mining Recovery factor of 100% has been assumed as the mineable shapes are within the 0.5m kimberlite skin. It is expected that over 100% may be won due to sloughing and slumping of the 0.5m skin. Also where the 0.5m skin is in contact with kimberlite and not the country rock walls, undercut slumping may occur behind the skin providing further ore than currently estimated in the Ore Reserve.</li> <li>No mining dilution factor has been applied as waste rock is not expected in the mining void. Any pit wall collapse into the void involving country rock is expected to be localized and minimal.</li> <li>The clayey kimberlites exhibit variable density, hardness and moisture. Volumetric grades (carats per BCM) were initially calculated for all pipes. Average field bulk densities were determined for each weathered and fresh Resource category. The</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	field bulk densities for the weathered Indicated Resource in each pipe were used to convert Recoverable Resources to Ore Reserve tonnages.  Merlin Diamonds completed a Hydraulic Borehole Mining trial in September-October 2013. The trial achieved success in a number of areas however production rates required were not achieved. Merlin Diamonds re-assessed and investigated various mining methods seeking a low capital method that could best employ the current site infrastructure. The mining methods considered included existing open pit expansion, underground mining, floating cutter dredge, large diameter augering, hydrofraise, hydraulic grab and mechanical clamshell grab. The mechanical clamshell grab method was the best alternative. The key factors in selecting the mechanical clamshell grab were:  Duo capital cost and utilisation of the existing infrastructure  Simple mechanical machinery presenting a similar extraction method to the excavators previously used at Merlin  Safety - Does not require lowering pit lake water levels which presents geotechnical failure risk to personnel and equipment  Geotechnical studies and laboratory testing undertaken indicate that the highly weathered Kimberlitic rock in the upper regions of the pipes at Merlin possess low Uniaxial Compressive Strength (UCS<25MPa). This rock is amenable to being mined by a mechanical clamshell grab  A comprehensive geotechnical study of Gawain was undertaken by SMEC in December 2012 to determine wall stability and geotechnical properties of the open pit during dredging operations. The Gawain pit stability modelling indicates that for a 30m excavation depth below the existing pit floor there is an 8.8% probability of failure (POF), at 60m depth there is 30% POF and at 85m depth there is A 47% POF. Given that the current pits are stable, all potential failures will occur below the water in the inundated and unsupported pits. SMEC identify the Mean Maximum block failure size to be 0.86 tonnes. The clamshell can extract over 15 tonnes and hence will be

Criteria	JORC Code explanation	Commentary
		Kimberlite from the sidewalls. A kimberlitic skin of 0.5m has been modelled as unmineable using the mechanical clamshell grab. It is expected that some of this material will slump into the mined void as it cannot self-support givens its low UCS. The slumped kimberlite ore won through this process cannot be quantified or estimated reliable, but could represent a significant uplift in material mined. This material does not dilute or concentrate the orebody but may increase the amount of recoverable ore.  The clamshell grab mining assumes excavation of kimberlite ore in 5m vertical flitches, similar to open cut mining.  The Recoverable Resource is based on the weathered Indicated Resource and hence no Inferred Resources are considered for the Ore Reserve.  Infrastructure required to utilize this mining method is either already present on site or readily accessible through dredging, civil and mining contractors.
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul> <li>The extraction process is basic beneficiation through washing and screening mechanisms followed by standard dense media separation of the diamonds to create a heavy diamond bearing concentrate which undergoes magnetic separation before being hand sorted for final diamond recovery. The final recovery upgrade proposes x-ray sorter, grease table and caustic cleaning circuits.</li> <li>The material properties of the Kimberlites are those of a clayey-breccia. This material has been previously mined and processed at the existing on-site facility that was fully recommissioned in September 2013.</li> <li>All existing and proposed equipment are well-tested industry standard technology.</li> <li>The Kimberlite pipes have been previously mined between 1999 and 2003 recovering 507,000 carats from over 2.2 million tonnes processed through a large scale plant employing the same technology as the existing Merlin processing plant. The previous production is considered representative of the orebody as a whole and provides a high degree of confidence in diamond recovery from the Merlin kimberlite ore. The historical production records of diamonds recovered categorized by pit and size fraction and valuation has been utilized as a predictive tool to determine value, grade and quantity of diamonds in the Recoverable Resource and hence Ore Reserve.</li> <li>There has been no Recovery Factor applied to the Ore Reserve as the Recoverable Resource grades are based on extremely large data samples from the historical production of each pipe at Merlin. Furthermore the Processing Recovery assumed that 100% of the material mined will be processed. The grizzly at the processing plant has 135-140mm scalping bars. From the</li> </ul>

Criteria	JORC Code explanation	Commentary			
		geotechnical testing of kimberlite drill core it has been established that the UCS of the kimberlite increases with depth and hence the amount of material larger than 140mm will consequently increase with depth. The oversize kimberlite material will be stockpiled and the on site crusher and rock breaker will be used to batch processing this material resulting in 100 percent of mined material being processed.  • The particulate nature of diamonds means that no deleterious elements need to be considered in the recovery process.			
Environmen- tal	The states of states of potential	<ul> <li>On 19<sup>th</sup> of April 2013 Merlin Diamonds Limited (MDL) submitted a Mining Management Plar (MMP) for Trial Borehole Mining comprising eight documents.</li> </ul>			
		characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue	characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue	characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue	PART A – ENVIRONMENTAL MINING REPORT was prepared in accordance with the Template for the Preparation of a Mining Management Plan (AA7-030) and served the dual purposes of meeting the requirement for publicly reporting and for meeting the requirements relating to the review, amendment and approval of an MMP.
		PART B – MINING OPERATIONS PLAN was prepared in accordance with the <i>Template for the Preparation of a Mining Management Plan</i> (AA7-030) and contained the detail relating to strategic planning, statutory requirements, and operational activities. As requested in the department's letter dated 6 <sup>th</sup> of February 2013, a response from MDL to the department's comments on the Care and Maintenance Plan was submitted on 10th of December 2012. The MDL response includes comments and cross references to the MMP Part A and Part Etogether with associated attachments.			
		ATTACHMENT A – WATER MANAGEMENT PLAN was prepared in accordance with the Template for the Preparation of Water Management Plans (AA7-030) and together with Part A serves the purpose of meeting the requirement for publicly reporting.			
		ATTACHMENT B – INTRODUCED PLANT & ANIMAL MANAGEMENT PLAN was prepared to manage weeds and feral animals within the mine area.			
		ATTACHMENT C – BUSHFIRE MANAGEMENT PLAN was prepared to manage bushfire within the mine area.			
		ATTACHMENT D - EROSION & SEDIMENT CONTROL PLAN was prepared to manage erosion and control sediment transport within the mine area.			
		FINANCIAL SECURITY - CARE & MAINTENANCE PLAN was an update from the Decembe 2012 submission to include further information on the basis of security calculations. The			

Criteria	JORC Code explanation	Commentary
		additional information included maps, tables and photographs.
		FINANCIAL SECURITY – TRIAL BOREHOLE MINING was prepared based on the Financial Security calculation for Care & Maintenance however includes the additional trial borehole mining infrastructure and associated closure allowances.
		On 29 <sup>th</sup> of May 2013 MDL was granted conditional approval for the MMP for the Hydraulic Borehole Mining trial. The approval required a review and submission of an updated MMP prior to the anniversary of the original Authorisation being 9 <sup>th</sup> of May 2014.
		Recently the DME revised the MMP process. The <i>new</i> MMP Template is to be used for the initial MMP and authorisation and then subsequently at 4 yearly intervals or as specified by the Department or when operations change. The previous process required public disclosure of Part A of the MMP. In the <i>new</i> process the MMP remains confidential. An Environmental Mining Report (EMR) is issued for public disclosure.
		The <i>new</i> process requires the submission of an Operational Performance Report (OPR) annually in years 2, 3 and 4 after the approval of the MMP. The OPR must be consistent with the approved MMP and include performance of the management systems on site and that they are minimising impacts to the environment. If monitoring shows an increase in impacts then corrective actions and improvements must be identified. A revised EMR needs to be submitted annually after acceptance of the MMP.
		MDL met with the DME on 10 <sup>th</sup> of February 2014 to present the trial mechanical grab mining proposal. The proposal described the mining of up to 57,000m³ of kimberlite ore from Ywain pit using a mechanical grab from a barge-mounted shear leg crane. The DME requires MDL to submit and gain approval of an OPR and full payment of the remaining financial security prior to the commencement of the activity. MDL submitted an OPR to DME on 8 <sup>th</sup> of May 2014. DME conditionally approved the OPR subject to payment of the updated financial security. The remaining financial security is currently being paid in installments and will be completely paid by 31 January 2015.
		<ul> <li>Following the mechanical grab mining trial, DME require MDL to submit an MMP in accordance with the new template.</li> <li>As all proposed mining is within kimberlite ore there will be no waste rock produced. All process tailings will be disposed of in-pit (Sacramore). Ore characterization tests undertaken have indicated that there are no geochemical concerns for tailings management.</li> </ul>

Criteria	JORC Code explanation	Commentary
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>The required accommodation, airfield and water supply are currently in place at Merlin</li> <li>The hire of additional generators and some supplementary fuel storage is required for the project. These are known to be readily available having been recently acquired for the September 2013 trial mining activity.</li> <li>The required infrastructure at Ywain pit to commence mining is in place. The mining is undertaken from floating barges which can be supplied by Merlin and dredging contractors.</li> <li>The construction of wharves and ramp re-sheeting is required at each pit to be mined.</li> <li>The existing above-ground tailings pipeline will be redirected to Sacramore pit. This does not require any further pipe.</li> <li>A final recovery upgrade is proposed incorporating x-ray sorter, grease table and caustic cleaning circuits which are containerised modules requiring hardstand areas and service connections.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>Capital costs, where possible, have been based upon quotes and services contracts that were obtained within 12 months of the completion of the feasibility study and not subject to any inflation allowances. A contingency of 10% has been applied to all capital costs.</li> <li>The operating costs for the operation are based on 2013 operation costs, tendered costs for operations or detailed quotes received during an expression of interests) and have been inflated by a CPI of 2.5% p.a. where appropriate. A contingency of 5% has been applied to all site operating costs.</li> <li>There have been no recorded deleterious elements at the Merlin Mine site.</li> <li>FX has been calculated based upon the average FX predicted rates from the major banks for the next 3 years.</li> <li>Transportation, security and catering costs have been estimated based on 2013 operation costs.</li> <li>The processing costs are based upon historical operating estimates. Diamond production is not subject to any financial penalties or requirements to meet specification that would incur a penalty.</li> <li>The royalties pertaining to Merlin mine lease are based upon Net Revenue, Net Sales or Company Profit. Only the royalties relating to Net Revenue or Net Sales have been applied to the feasibility financial model. Profit is not determined by the financial model as it does not account for interest, tax, depreciation and amortisation. Consequently profit related royalties are not included in the financial model.</li> <li>Native Title Royalty</li> </ul>
		<ul> <li>Native Title Royalty</li> <li>The Royalty is based upon an annualised pro-rata payment scheme and</li> </ul>

Criteria	JORC Code explanation	Commentary
		detailed in the Ancilliary Agreement. A royalty is placed upon the Profit of the company according to:  Profit of <\$10m per annum = 1%  Profit of \$10m - \$20m per annum = 2%  Profit of \$20m - \$30m per annum = 3%  Profit of \$30m - \$40m per annum = 4%  Profit of >\$40m per annum = 5%  There is no access or restrictive encumbrances placed upon mining lease MLN1154. This royalty is excluded from the financial model.
		<ul> <li>Biddlecombe Royalty         <ul> <li>An agreement between Biddlecombe and Ashton Mining existed upon the sale of the mine which requires the lease holder to pay Biddlecombe 1% of Net Sales. This royalty is included in the financial model.</li> </ul> </li> </ul>
		<ul> <li>Rio Tinto Royalty</li> <li>A royalty agreement exists between MDL's predecessors and Rio Tinto. A 0.75%         Net Revenue royalty (excluding reasonable sales costs) is applicable to diamond sales. This royalty is included in the financial model.     </li> </ul>
		<ul> <li>Northern Territory Government Royalty</li> <li>MDL is required to pay royalties to the Northern Territory Government under the Mineral Royalty Act 1982 (NT). The royalty is to be paid on the Net Value of a saleable mineral commodity sold or removed without sale from a production unit. The royalty applied is 20% of the gross Profit realised by the Company. This includes allowances for capital deductions, amortisation, depreciation and other deductions allowed for by the Minister.</li> <li>This royalty is excluded from the financial model however it should be noted that MDL has carried forward Negative Net Value of approximately \$43,000,000 which can be offset against the net value of saleable minerals before royalties become payable.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of</li> </ul>	<ul> <li>Grades are based on the <i>MRE</i> grades with alterations to the +5DTC size fraction for the Ywain and Gawain pipes only. The grade in this size fraction for these pipes were revised down to meet historically recovered production grades during trial mining rather than using grades derived from smaller bulk samples. The MRE grades are recovered grades from historical operations using a processing plant similar to what currently exists.</li> <li>Commodity prices are based upon the 2015 forecast prices for Merlin's diamonds. Each pipe and each DTC sizing has been individually calculated based upon the price index change from</li> </ul>

Criteria	JORC Code explanation	Commentary
	metal or commodity price(s), for the principal metals, minerals and co-products.	parcels of diamonds sold when it was last mined between 1999-2003. The historical change in diamond prices was sourced from industry reports by KPMG, Bain & Co and Antwerp World Diamond Centre. This dataset is considered to be the largest, most comprehensive and accurate price metric upon which to project an accurate value for the diamonds.  • All transportation and anticipated valuation costs have been accounted for.  • Assumption of 9% average annual growth increase to future rough diamond sales prices have been assumed based upon the global trends experienced since 2004 as sourced from Bain & Co.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>No market trends exist in reports that would indicate the current growth rate and demand for rough diamonds will diminish. Bain &amp; Co (The Global Diamond Report 2013) in conjunction with the Antwerp World Diamond Centre predict demand to outstrip supply over the long term. The report states "Over last few years, demand and supply reached a condition of rough balance that should persist through 2017. From 2018 through 2023, as existing mines are depleted and new mines add only limited production, supplies will decrease in both volume and value terms. At the same time, demand will sustain its upward growth trajectory, fuelled by rising economic prosperity in emerging markets. The growth of demand over supply makes for a positive long-term outlook".</li> <li>The demand for luxury goods is being driven by the growing middle class in China and India. Euromonitor reports the number of Chinese and Indian middle-class households in 2012 was 82 and 37 million respectively. Bain (2013) predict this number to increase to 218 and 123 million, demonstrating a 10 and 11 percent CAGR respectively.</li> <li>Another positive trend for the diamond market is China's recent adoption of the western custom of using diamonds to commemorate a wedding engagement. In 1993 DeBeers first aired their "Diamonds are Forever" campaign in China. CitiGroup (2013) has reported the DeBeers analysis of the frequency of diamond-ring engagements in three major Chinese cities. In 1993 there were minimal diamond-ring engagements, however by 1997, a third of engagements in Shanghai were signified with the giving of a diamond ring and by 2006 over 60 percent were adopting this custom. Beijing and Guangzhou have all followed the Shanghai trend and astute retailers now offer diamond-rings into stores in the second, third and fourth tier Chinese cities. DeBeers state that the CAGR from 1994 to 2010 of first-time brides who receive a diamond-only engagement ring is 23.9 percent (CitiGroup, 2013)</li> <li>With the ever increasing tightening of non-fa</li></ul>

Criteria	JORC Code explanation	Commentary
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>The financial model created for the mine is a discounted cash flow model. Inflation parameters to costs and revenues have been applied as detailed previously. The discount rate used to calculate the NPV was 8%.</li> <li>Annual CPI increases to costs have been applied at a rate of 2.5% p.a.which is consistent with the recent CPI and the Reserve Bank of Australia's stated monetary policy of long term CPI between 2-3%p.a.</li> <li>Sensitivity analysis has been conducted on revenue and costs. The revenue sensitivity was tested by adjusting the adopted CAGR of 9 percent to a lower bound of 5 percent and upper bound of 13 percent. The costs sensitivity was tested by adjusting the capital and operating contingency of 10 and 5 percent respectively to an upper bound of 30 and 20 percent respectively and a lower bound of 0 percent respectively.</li> <li>In summary, the operation is more sensitive to revenue than to costs, however the project is financially robust.</li> </ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul> <li>Merlin Diamonds Ltd is bound by the previous royalty agreements and DME authorisation to mine which includes annual environmental reporting requirements. There are no matters that lead to social licence to operate.</li> <li>Merlin Diamonds Ltd will continue to engage with key stakeholders in relation to the project, both local and governmental.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which</li> </ul>	<ul> <li>Seasonal Climatic Conditions present access and operational risk due to heavy rainfall between January and March. The operational model has taken this into account by stockpiling material prior to wet season and allow processing to continue during this period of inaccessibility. This risk also requires stockpiling of essential items such as food, fuel and spares.</li> <li>The amenability of the material to be mined using the mechanical clamshell grab and the ability to achieve the required production rates is considered a risk.</li> <li>Currently Merlin is proposing to sell diamond parcels through established diamond brokers. This is not considered a material risk, however the time to realise revenue following the sales is a risk.</li> <li>There are no material legal risks that have been identified.</li> <li>The Project is approved to conduct operations in the Ywain Pit under the conditionally approved Operational Performance Report subject to payment of updated financial security. The remaining financial security is currently being paid in installments and will be completed by 31<sup>st</sup> of January 2015.</li> <li>An updated MMP will be required to be submitted prior to mining the other pits in the Life of Mine plan. The updated MMP will be submitted to DME prior to commencement of the grab mining in Ywain. It is not considered a material risk that the additional MMP will delay the</li> </ul>

Criteria	JORC Code explanation	Commentary
	extraction of the reserve is contingent.	<ul><li>project.</li><li>The project and Tenement is currently in good standing</li></ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>All Ore Reserves have been classified as <i>Probable</i>. This is based upon the reasonable expectations of the material to be excavated and processed within the boundaries of the applied <i>modifying factors</i> for mining, processing and recovery.</li> <li>Only Indicated Mineral Resource Estimates in the <i>weathered</i> horizons have been classified as Ore Reserves.</li> <li>The deposit geometry is well understood from the exploration and resource drilling. The grades of the deposits are based upon historical recovered grades from previous mining activity that represent a highly representative bulk sample. The grades for the diamonds pipes are considered reasonable and achievable.</li> <li>Both the deposit grade and geometry are considered to be reasonably well defined to allow the <i>Competent Person</i> to classify the Ore Reserves as Probable.</li> <li>There exists no material in the Probable Ore Reserve that has been derived from a Measured Mineral Resources.</li> </ul>
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>The Mineral Resource Estimate, Ore Reserve and accompanying Feasibility Study has been reviewed internally and considered achievable and realistic.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions</li> </ul>	<ul> <li>Factors that could affect the accuracy of the estimate include:</li> <li>Ore Volumes – The kimberlite pipe volumes have been created in Micromine using validated and checked geological data. The pipes have a high confidence in geometry and weathering profiles required to classify this estimate in the JORC defined Probable category. The mined ore volume represents a shape that the Competent Person considers appropriate for the machinery to physically mine. A minimum of 0.5m of Kimberlite ore remains as an un-mineable skin around the periphery of the <i>MRE</i> shape.</li> <li>Ore Grade – The Ore grade used to determine the estimates are based upon the historical mining data obtained from the Ashton/Rio Tinto mining reconciliations between 1999-2003. This data provides a comprehensive reconciliation of production data during this time. Grades used from the estimate are based upon recovered grades during this time on a per BCM (volume) basis.</li> <li>Ore Tonnage – Ore tonnage has been calculated on the average wet bulk density measurements taken from both the in-pit area and diamond core for each pit, where available. Wet bulk densities have been used to calculate a tonnage that is considered accurate with localized variations up to 5%.</li> <li>Contained Diamonds – Grade (carat per tonne) has been calculated based upon a carat per BCM and converted to tonnage using wet bulk density. It is accepted that some error will exist in the field bulk densities (wet bulk densities). To mitigate error, the carat per BCM is considered more accurate and has been used as the basis for contained</li> </ul>

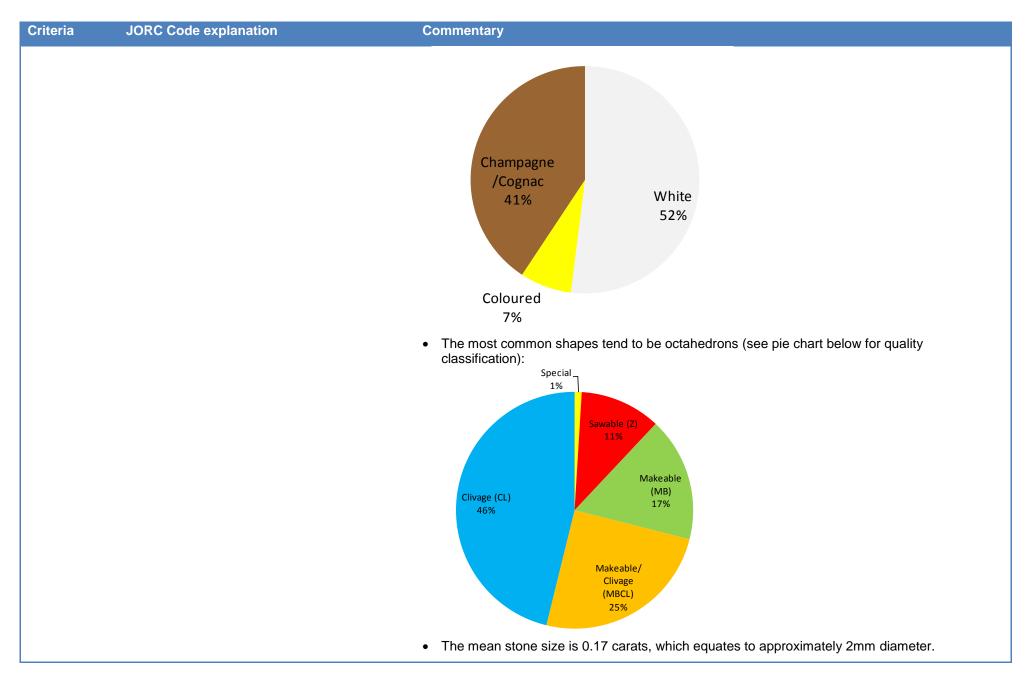
Criteria	JORC Code explanation	Commentary
	should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.  It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	diamonds. Diamonds are considered to be equally distributed throughout the pipe estimation purposes, so a global grade for each pipe has been assigned based upon historical recovered grade. No attempt has been made to reconstruct a localized gradel as not enough data exists to define grade other than at a 'whole of presolution.  • Mining Rate – has been calculated based on time-and-motion studies for both mechanical grab and the excavation/haulage contractor. Both calculations have be generated using conservative time estimates with sufficient redundancy that the min rate is considered conservative and achievable.  • Processing Rate - has been based upon the rate achieved in September 2 recommissioning, whereby up to 600 tonnes per shift were achieved through processing plant. A daily throughput of 540t has been applied to the Reserve estim as an achievable production rate.  • Revenue Projections – the revenue per carat for each pipe has been derived from 1999-2003 sales data. These revenues have been indexed based upon recorded ro diamond price trends to produce 2015 valuations. Due to the differing size freque distributions, colours, clarities and quality of diamonds in each pipe a valuation more was created for each pipe. This is detailed below:
		PIPE US\$/ct US\$/BCM
		Ywain \$336 \$407
		Gawain \$424 \$277
		Excalibur \$382 \$243
		Palomides \$344 \$137
		Launfal \$405 \$134
		Gareth \$276 \$110
		Kaye \$376 \$82
		Ector \$299 \$63
		Average \$352 \$107

Criteria	JORC Code explanation	Commentary
		<ul> <li>Revenue Realisation – the financial model assumes revenue from diamond sales is realised 30 days after dispatch to the diamond broker from Merlin mine.</li> <li>Mining Dilution – No dilution has been applied to Recoverable Resource to estimate the Ore Reserve. This is not considered to present a material factor for the Ore Reserve.</li> <li>Processing Recovery Tonnes –It is assumed that 100% of the material mined will be processed as the grizzly rejects will be batch crushed and processed through the plant. This is not considered a material factor for the Ore Reserve</li> <li>Processing Recovery Grade – There has been no Recovery Factor applied to the Recoverable Resource in estimating the Ore Reserve as production grades were used to determine the Recoverable Resource grade. This is not considered a material factor for the Ore Reserve.</li> <li>Ore Slumping - There has been no allowance for the internal slumping of Kimberlite from the 0.5m skin and thicker kimberlitic sidewalls in several pits. This is likely to increase the ore mined and diamonds recovered.</li> </ul>

## **Section 5 Estimation and Reporting of Diamonds and Other Gemstones**

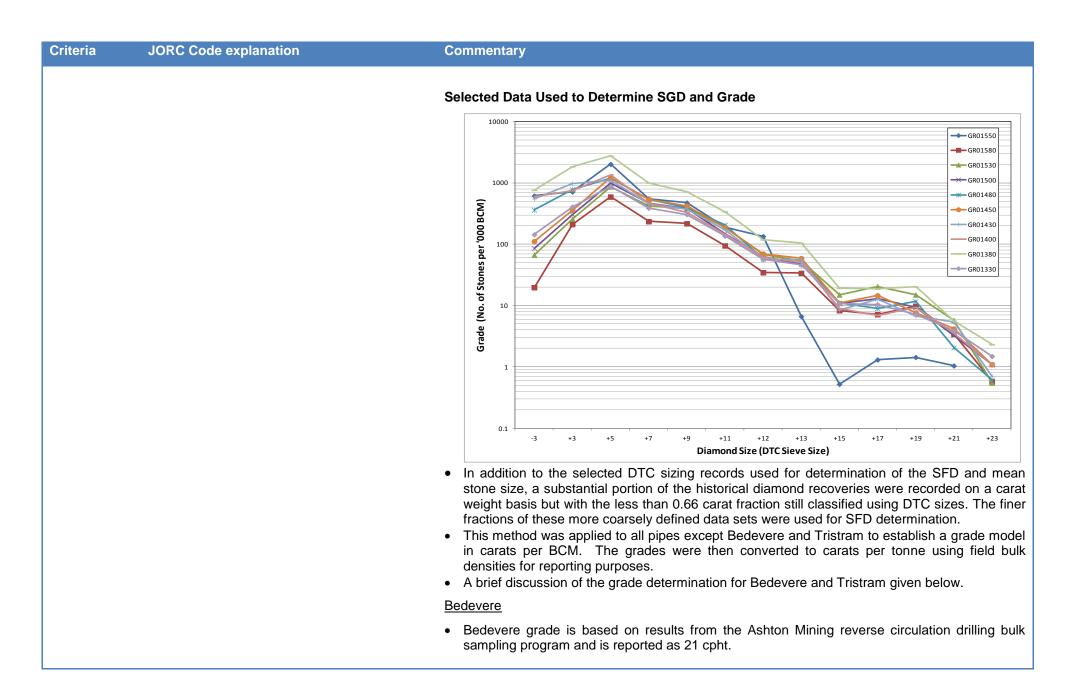
(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)

Criteria	JORC Code explanation	Commentary
Indicator minerals	<ul> <li>Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.</li> </ul>	Not applicable to this Resource Estimate.
Source of diamonds	<ul> <li>Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.</li> </ul>	<ul> <li>Merlin diamonds are sourced from the primary hard rock kimberlites within the mining lease ML1154. No diamonds sourced from alluvial deposits are reported.</li> <li>Merlin diamonds are typically white, brown and infrequently yellow (see pie chart below for historical percentages based on over 345,000 carats):</li> </ul>



Criteria	JORC Code explanation	Commentary
Sample collection	<ul> <li>Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (eg large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).</li> <li>Sample size, distribution and representivity.</li> </ul>	<ul> <li>Sampling techniques used to estimate the resource include various drilling techniques to define the volume, tonnage, and diamond content. Historical open pit mining and processing data of 507,000 carats largely contributed to the MRE grade. The extensive production data for each pipe provides a large representative sample to accurately determine grade for the upper zone weathered kimberlite similar to that historically mined.</li> <li>Ashton Mining carried out exploration and delineation drilling using rotary air blast, reverse circulation and diamond core drilling to define the kimberlite pipes.</li> <li>Reverse circulation drilling was completed to obtain larger samples for grade determination and an early indication on diamond quality.</li> <li>Open pit excavations were completed on a number of pipes to obtain samples of approximately 200 tonnes each for feasibility work. These samples were processed through a 5tph mobile processing plant followed by x-ray and hand sorting to recover the diamonds.</li> <li>Ashton Mining carried out commercial scale trial mining from 1998 to 2003. The mining operation was a conventional open pit mine using excavators and trucks to excavate and cart the ore to a production scale dense media separation plant followed by x-ray sorting and acid cleaning of the final product. A total of 2.24 million tonnes of kimberlite was mined and processed to produce 507,000 carats of diamonds.</li> <li>Open pit mining and production trials were undertaken by Merlin Diamonds' predecessors at various times between 2005 and 2010. The ore was excavated using an excavator and processed through the existing processing plant. This produced 35,962 carats of diamonds.</li> </ul>
Sample treatment	<ul> <li>Type of facility, treatment rate, and accreditation.</li> <li>Sample size reduction. Bottom screen size, top screen size and re-crush.</li> <li>Processes (dense media separation, grease, X-ray, hand-sorting, etc).</li> <li>Process efficiency, tailings auditing and granulometry.</li> <li>Laboratory used, type of process for micro diamonds and accreditation.</li> </ul>	<ul> <li>Ashton Mining drilling samples used for grade determination were processed using a company owned mobile 5tph Mark 3 Heavy Media Separation Plant followed by x-ray and hand sorting to obtain the final product. Bottom screen size was 0.8mm and the upper screen size was 25mm. No material was recrushed although the oversize was likely to have been repassed through the plant.</li> <li>Ashton Mining processed the open pit mining samples through a production scale100tph dense media separation plant. The bottom screen size was initially 1.2mm but was reduced to 0.95mm in April 2000. Floats material was recrushed using a cone crusher to 8mm. The top screen size was 25mm. X-ray sorters were used to recover the final product for transportation to Perth for cleaning and sizing.</li> <li>Merlin Diamonds used a mobile 5tph Mark 3 Heavy Media Separation Plant to process samples during 2005. Screen sizes were 0.8mm (bottom) and 25mm (top). High powered magnetic separators, optical sorting and hand sorting were used to recover the final product. No recrushing or x-ray sorting was used.</li> <li>From 2006 to 2010 Merlin Diamonds used a 15tph dense media separation plant to process the samples. A High Pressure Grinding Roll crusher was used at various times to crush material and this was subsequently incorporated into the existing processing plant at Merlin. Screen sizes were 0.8mm (bottom) and 20mm (top). High powered magnetic separators,</li> </ul>

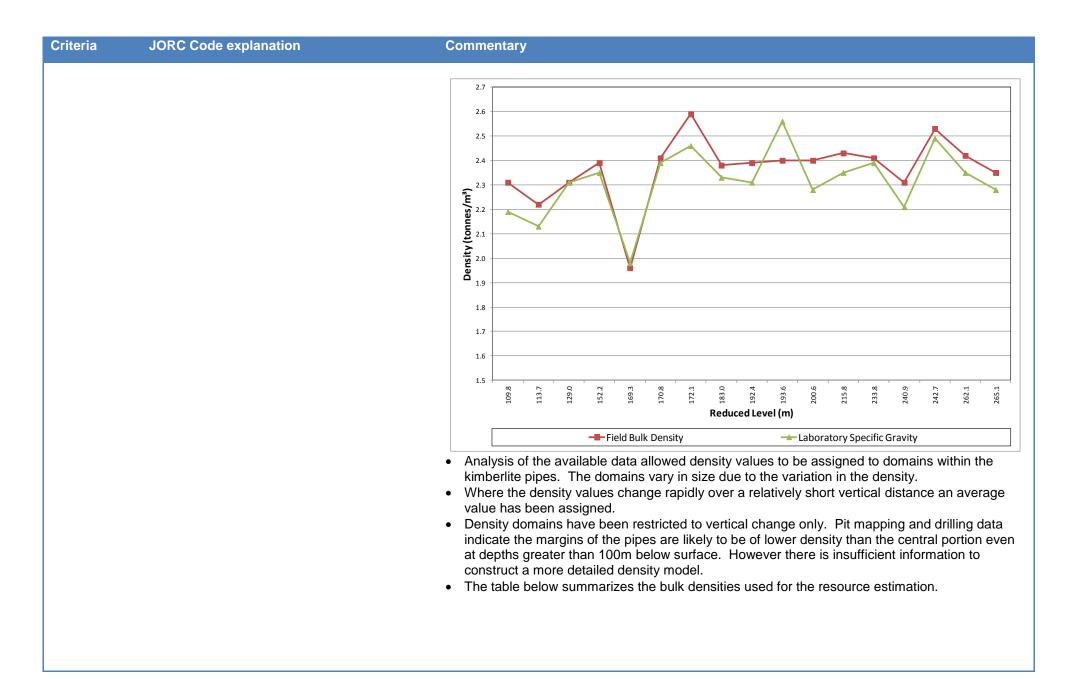
Criteria	JORC Code explanation	Commentary
		<ul> <li>optical sorting and hand sorting were used to recover the final product. No recrushing or x-ray sorting was used.</li> <li>Microdiamonds have not been used in this Resource Estimate Albeit microdiamonds have been used to validate diamonds grades at depth in several pipes.</li> </ul>
Carat	<ul> <li>One fifth (0.2) of a gram (often defined as a metric carat or MC).</li> </ul>	<ul> <li>For this report a carat is defined as one fifth (0.2) of a gram (often defined as a metric carat or MC).</li> </ul>
Sample grade	<ul> <li>Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.</li> <li>The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.</li> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).</li> </ul>	however reverse circulation bulk sampling, large diameter core and auger drilling, an carefully excavated and measured bulk samples were also used for different pipes Microdiamonds have not been used for grade estimation.



Criteria	JORC Code explanation	Commentary					
		Drill Hole	Interval (m)	Weight (tonnes)	Diamonds (stones)	Diamonds (carats)	Grade (cpht)
		BH408	33 to 96	3.857	10	0.38	9.8
		BH409	49 to 96	3.689	12	1.2315	33.3
		Combined		7.546	22	1.6115	21
			monds Limite				ulk sampling prog Drill) program and
		Sample	(tonnes)	(stones)	(carats)	(cpht)	
		06-012-001	12.3	14	1.37	11.1	
		06-012-002	10.2	3	0.05	0.49	
		Combined	22.5	17	1.42	6.3	
Reporting of Exploration Results	<ul> <li>Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.</li> <li>Sample density determination.</li> <li>Per cent concentrate and undersize per</li> </ul>	• Due to the increases of determinat	with depth as ions was cor Field bulk Field bulk Laboratory	thered nature of the kimberlite npiled using; density determ density determ v specific gravit	becomes less inations of pit inations of drill y determinatio	weathered. Assamples I samples ns of drill sam	
	<ul> <li>sample.</li> <li>Sample grade with change in bottom cut-off screen size.</li> </ul>		0,		· ·	•	volumes is detailed ng mining operation

Adjustments made to size distribution for

Criteria JORC Code explanation	Commentary
sample plant performance and performance on a commercial scale.  If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.  The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated.	<ul> <li>The density of in-pit samples was determined using the weight in air and water method. Between 20 and 40 samples per flitch were collected and weighed. These results represent 'wet' bulk densities.</li> <li>Diril core was used to determine field bulk densities using either the volume method or the weight in air and water method.</li> <li>For the volume method a length of core of known diameter was cut and weighed using calibrated scales. The weight of core was typically between 1 and 3 kilograms. The core was cut and weighed at the time it was drilled and represents a 'wet' field bulk density.</li> <li>All density measurements have been entered into a database.</li> <li>Laboratory specific gravity determinations were obtained for a selection of drill core samples and represent 'dry' bulk densities, which allow a comparison to be made with the field bulk density determinations.</li> <li>The field bulk densities (wet) are on average 3% higher than the laboratory densities (dry), which is attributed to the moisture content.</li> <li>The chart below shows a consistent correlation between the kimberlite field bulk densities (wet) and laboratory specific gravities (dry) at various depths in the Palomides pipe. This provides confidence in adopting the available field densities over the full kimberlite depth.</li> </ul>



Criteria	JORC Code explanation	Commentary	/			
		PIPE	RL		Bulk	
			From (mRL)	To (mRL)	Density (t/m3)	
		Palsac	115	60	2.31	
			60	-200	2.4	
			-200	-550	2.5	
		Launfal	86	50	2.36	
			50	-50	2.46	
		Excalibur	110	20	2.03	
			20	-40	2.49	
		Gawain	140	50	2.06	
			80	-200	2.47	
		Ywain	150	50	2.1	
			50	0	2.4	
			0	-20	2.75	
		Gareth	94	70	2.1	
			70	40	2.38	
		Ector	155	80	2.04	
			80	0	2.38	
		Kaye	150	80	1.80	
			80	20	2.38	
		Bedevere	135	40	2.03	
			40	-40	2.64	
		Tristram	160	80	2.03	
			80	0	2.51	
		size of 0.9 • The grade	5mm and care models derive	efully treated ed using the	samples with 0.8mm scree	n historic mining records with a bottom screen a bottom screen size of 0.8mm. en size includes recovery of fine diamonds ant using a coarser bottom screen size (eg

Critoria	IOPC Code explanation
Grade estimation for reporting Mineral Resources and Ore Reserves	<ul> <li>Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.</li> <li>The sample crush size and its relationship to that achievable in a commercial treatment plant.</li> <li>Total number of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>Total weight of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>The sample grade above the specified lower cut-off sieve size.</li> </ul>

#### Commentary

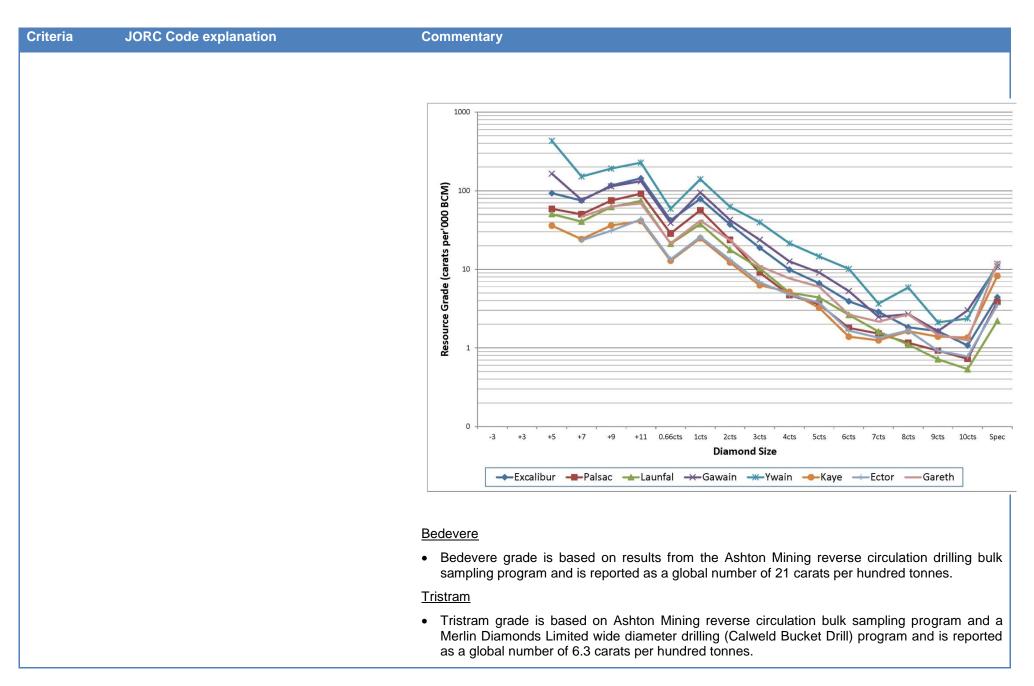
#### MINERAL RESOURCE

- The table below summarises the <u>Resource Grade</u> model for all pipes except Bedevere and Tristram, which are given as a global grade only. The grades are reported for material retained on a 5DTC sieve.
- The grades were determined from the historical recovery records whereby over 2.2 million tonnes of material were processed to recover over 507,000 carats through a plant similar to the plant currently at Merlin Mine. Where available, the finer fraction (5DTC) of the production grade was adjusted based on bulk sampling and drill core assays to reflect the contained diamonds in the Resource (i.e. not only the diamonds recovered by the processing plant).

	RESOURCE GRADE MODEL (carats per bank cubic metre)							
Weight	Gawain	Ywain	Excalibur	Palsac	Launfal	Kaye	Ector	Gareth
Spec	0.0109	0.0118	0.0044	0.0038	0.0022	0.0082	0.0035	0.0123
10cts	0.0030	0.0024	0.0011	0.0007	0.0005	0.0014	0.0008	0.0012
9cts	0.0016	0.0021	0.0016	0.0009	0.0007	0.0014	0.0009	0.0015
8cts	0.0027	0.0059	0.0018	0.0012	0.0011	0.0016	0.0017	0.0027
7cts	0.0025	0.0037	0.0029	0.0015	0.0016	0.0012	0.0013	0.0022
6cts	0.0053	0.0101	0.0039	0.0018	0.0026	0.0014	0.0017	0.0026
5cts	0.0091	0.0146	0.0066	0.0036	0.0044	0.0032	0.0037	0.0060
4cts	0.0126	0.0214	0.0099	0.0047	0.0050	0.0052	0.0048	0.0076
3cts	0.0237	0.0396	0.0188	0.0091	0.0103	0.0063	0.0068	0.0109
2cts	0.0424	0.0624	0.0373	0.0237	0.0177	0.0122	0.0132	0.0235
1cts	0.0948	0.1399	0.0788	0.0563	0.0376	0.0248	0.0259	0.0415
0.66cts	0.0389	0.0590	0.0420	0.0286	0.0211	0.0129	0.0134	0.0214
+11 DTC	0.1321	0.2276	0.1439	0.0918	0.0742	0.0410	0.0431	0.0688
+9 DTC	0.1136	0.1913	0.1166	0.0749	0.0622	0.0361	0.0310	0.0632
+7 DTC	0.0765	0.1514	0.0749	0.0501	0.0405	0.0242	0.0234	0.0467
+5 DTC	0.1647	0.4307	0.0930	0.0587	0.0503	0.0359	0.0342	0.0871
	0.73	1.37	0.64	0.41	0.33	0.22	0.21	0.40

Criteria	JORC Code explanation	Commentary								
				RESOURC	E GRADE (st	ones per k	oank cubic r	netre )		
		Weight	Ywain	Gawain	Excalibur	Palsac	Launfal	Gareth	Kaye	Ector
		Spec	0.0008	0.0007	0.0003	0.0002	0.0001	0.0008	0.0005	0.0002
		10cts	0.0002	0.0003	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		9cts	0.0002	0.0002	0.0002	0.0001	0.0001	0.0002	0.0001	0.0001
		8cts	0.0007	0.0003	0.0002	0.0001	0.0001	0.0003	0.0002	0.0002
		7cts	0.0005	0.0003	0.0004	0.0002	0.0002	0.0003	0.0002	0.0002
		6cts	0.0016	0.0008	0.0006	0.0003	0.0004	0.0004	0.0002	0.0003
		5cts	0.0027	0.0017	0.0013	0.0007	0.0008	0.0011	0.0006	0.0007
		4cts	0.0050	0.0029	0.0023	0.0011	0.0012	0.0018	0.0012	0.0011
		3cts	0.0120	0.0072	0.0057	0.0028	0.0031	0.0033	0.0019	0.0021
		2cts	0.0271	0.0184	0.0162	0.0103	0.0077	0.0102	0.0053	0.0058
		1cts	0.1077	0.0730	0.0606	0.0433	0.0289	0.0319	0.0191	0.0199
		0.66cts	0.0767	0.0505	0.0546	0.0371	0.0274	0.0278	0.0167	0.0174
		+11	0.7467	0.4044	0.4194	0.2804	0.2119	0.2105	0.1190	0.1244
		+9	1.0345	0.5773	0.6016	0.3856	0.3021	0.3220	0.2091	0.1553
		+7	1.2644	0.5936	0.6292	0.4165	0.3315	0.3808	0.2877	0.1909
		+5	6.0920	2.3386	1.3338	0.8495	0.7117	1.2556	0.4553	0.5212
			9.37	4.07	3.13	2.03	1.63	2.25	1.12	1.04

- The chart below shows the Resource Grade size distributions.
- Ywain is clearly evident as the highest grade pipe. All pipes are shown to have a similar size frequency distribution.



Criteria JORC Code explanation	Commentary
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### **ORE RESERVE**

• The Ore Reserve grade has been modified from the Mineral Resource grade to accurately reflect the lower recovery of the finer fraction (5DTC) diamonds by a commercial diamond processing plant compared to the contained diamonds represented by the Mineral Resource grade. This is notable in the +5DTC size fraction in the Reserve Grade model tabled below as compared to the Resource Grade model table..

	RESERVE GRADE MODEL (carats per bank cubic metre)								
Weight	Ywain	Gawain	Excalibur	Palomides	Launfal	Gareth	Kaye	Ector	
Spec	0.0118	0.0109	0.0044	0.0048	0.0022	0.0123	0.0082	0.0035	
10cts	0.0024	0.0030	0.0011	0.0007	0.0005	0.0012	0.0014	0.0008	
9cts	0.0021	0.0016	0.0016	0.0008	0.0007	0.0015	0.0014	0.0009	
8cts	0.0059	0.0027	0.0018	0.0012	0.0011	0.0027	0.0016	0.0017	
7cts	0.0037	0.0025	0.0029	0.0012	0.0016	0.0022	0.0012	0.0013	
6cts	0.0101	0.0053	0.0039	0.0015	0.0026	0.0026	0.0014	0.0017	
5cts	0.0146	0.0091	0.0066	0.0035	0.0044	0.0060	0.0032	0.0037	
4cts	0.0214	0.0126	0.0099	0.0047	0.0050	0.0076	0.0052	0.0048	
3cts	0.0396	0.0237	0.0188	0.0090	0.0103	0.0109	0.0063	0.0068	
2cts	0.0624	0.0424	0.0373	0.0188	0.0177	0.0235	0.0122	0.0132	
1cts	0.1399	0.0948	0.0788	0.0540	0.0376	0.0415	0.0248	0.0259	
0.66cts	0.0590	0.0389	0.0420	0.0280	0.0211	0.0214	0.0129	0.0134	
+11 DTC	0.2276	0.1321	0.1439	0.0923	0.0742	0.0688	0.0410	0.0431	
+9 DTC	0.1913	0.1136	0.1166	0.0702	0.0622	0.0632	0.0361	0.0310	
+7 DTC	0.1514	0.0765	0.0749	0.0514	0.0405	0.0467	0.0242	0.0234	
+5 DTC	0.2674	0.0841	0.0930	0.0557	0.0503	0.0871	0.0359	0.0342	
	1.21	0.65	0.64	0.40	0.33	0.40	0.22	0.21	

	RESERVE GRADE (stones per bank cubic meter)									
Weight	Ywain	Gawain	Excalibur	Palomides	Launfal	Gareth	Kaye	Ector		
Spec	0.0008	0.0007	0.0003	0.0003	0.0001	0.0008	0.0005	0.0002		
10cts	0.0002	0.0003	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
9cts	0.0002	0.0002	0.0002	0.0001	0.0001	0.0002	0.0001	0.0001		
8cts	0.0007	0.0003	0.0002	0.0001	0.0001	0.0003	0.0002	0.0002		
7cts	0.0005	0.0003	0.0004	0.0002	0.0002	0.0003	0.0002	0.0002		
6cts	0.0016	0.0008	0.0006	0.0002	0.0004	0.0004	0.0002	0.0003		
5cts	0.0027	0.0017	0.0013	0.0007	0.0008	0.0011	0.0006	0.0007		
4cts	0.0050	0.0029	0.0023	0.0011	0.0012	0.0018	0.0012	0.0011		
3cts	0.0120	0.0072	0.0057	0.0027	0.0031	0.0033	0.0019	0.0021		
2cts	0.0271	0.0184	0.0162	0.0082	0.0077	0.0102	0.0053	0.0058		
1cts	0.1077	0.0730	0.0606	0.0416	0.0289	0.0319	0.0191	0.0199		
0.66cts	0.0767	0.0505	0.0546	0.0364	0.0274	0.0278	0.0167	0.0174		
+11	0.7467	0.4044	0.4194	0.2831	0.2119	0.2105	0.1190	0.1244		
+9	1.0345	0.5773	0.6016	0.3662	0.3021	0.3220	0.2091	0.1553		
+7	1.2644	0.5936	0.6292	0.4208	0.3315	0.3808	0.2877	0.1909		
+5	3.7818	1.1944	1.3338	0.7974	0.7117	1.2556	0.4553	0.5212		
	7.06	2.93	3.13	1.96	1.63	2.25	1.12	1.04		

Criteria	JORC Code explanation	Commentary
Value	A Walkertiana abauld not be reported for	1000  1000
Value estimation	<ul> <li>Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.</li> <li>To the extent that such information is not deemed commercially sensitive, Public Reports should include:         <ul> <li>diamonds quantities by appropriate screen size per facies or depth.</li> <li>details of parcel valued.</li> </ul> </li> </ul>	<ul> <li>The valuations are based on recovered diamonds through the current processing facility with exclusion of the -5DTC size fractions on the grounds of being uneconomic to recover.</li> <li>Valuations (US\$ per carat) for each pipe were derived from the 1999-2003 sales data available in diamond size fractions. The sales values were indexed to 2015 valuations using recorded rough diamond price trends to 2014 and the sales price trend for the past decade for 2014 to 2015. Historic sales data for over 284,000 carats was available which constitutes extensive and representative parcels of diamonds for each pipe. The sales data in each size fraction was used to develop a valuation model for each pipe. There was limited sales data for the diamond sizes greater than 3 carats and consequently data for pipes was pooled in these categories to provide acceptable sample sizes for analysis. The sales data for diamond fractions greater</li> </ul>

Criteria	JORC Code explanation	Commentary	y			
	<ul> <li>number of stones, carats, lower size cutoff per facies or depth.</li> <li>The average \$/carat and \$/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.</li> <li>The basis for the price (eg dealer buying price, dealer selling price, etc).</li> <li>An assessment of diamond breakage.</li> </ul>	cluster pip have high the North have histo The table The graph	pes were pool er proportion ern cluster pip orically attract below lists the	ed. This dis of white dia bes with hig ed lower va e average 2	stinction was mamonds which which which which which which which was been taged to be some the control of the co	ster pipes were pooled. Similarly the Northe ade as the Southern and Central cluster pipe historically have garnered higher values that of cognac and champagne diamonds which for the pipes in the Ore Reserve.  The the pipes in the Ore Reserve according
			Ywain	\$336	\$407	
			Gawain	\$424	\$277	
			Excalibur	\$382	\$243	
			Palomides	\$344	\$137	
			Launfal	\$405	\$134	
			Gareth	\$276	\$110	
			Kaye	\$376	\$82	

\$299

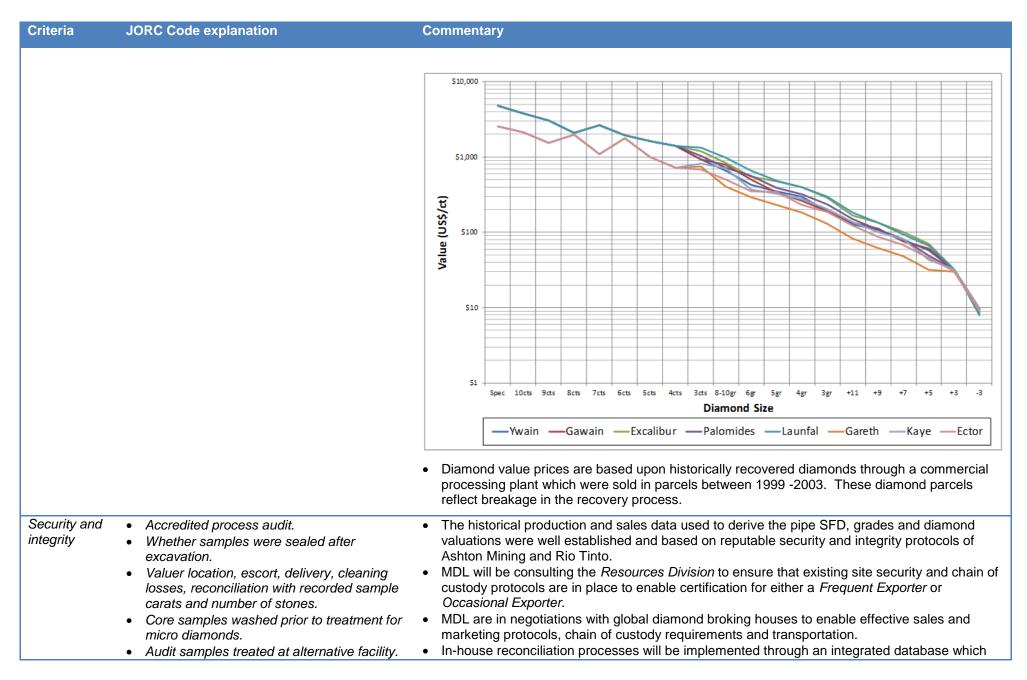
\$352

Ector

Average

\$63

\$107



	records stone	e size, quality, co	olour, clarity, size	and weight.		
g q						
assess volume and density there is a need	The table bell classification.		the Global Resou	rce Estimate acc	ording to thei	ir Resource
to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per	GLOBAL RESO	URCE				
stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.	PIPE	INDICATED RESOURCE (tonnes)	INFERRED RESOURCE (tonnes)	RESOURCE TOTAL (tonnes)	GRADE (cpht)	RESOURCE (Carats)
	YWAIN <sup>2</sup> 71,505 66,548 138,054	138,054	60	83,324		
	GAWAIN <sup>2</sup>	992,359	603,661	1,592,020	31	493,086
E	EXCALIBUR <sup>1</sup>	347,541	232,427	579,968	29	168,675
	LAUNFAL <sup>1</sup>	1,458,763	1,480,492	2,939,254	14	398,742
	PALSAC <sup>1</sup>	7,240,219	6,421,975	13,662,194	17	2,304,714
<u> </u>	TRISTRAM <sup>2,3</sup>		606,475	606,475	6	36,059
	KAYE <sup>2</sup>	1,114,840	1,737,401	2,852,241	10	292,742
	ECTOR <sup>1</sup>	2,038,295	2,813,993	4,852,288	9	456,929
	GARETH <sup>1</sup>	118,723	62,113	180,835	18	32,294
E	BEDEVERE <sup>1,</sup>		402,754	402,754	22	87,324
	3			27,810,083	16	4,353,888

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	Resource category.  Sufficient density data points have been used to enable the Indicated and Inferred volumes to be converted to tonnages.  The Merlin kimberlites contain various kimberlite facies, which represent varying rock types between and within the kimberlite pipes. The various facies essentially represent different intrusive events.  Accurately defining the facies variation within each pipe is not possible with the current drilling information.  Previous mining operations considered each pipe as a bulk facies and the grade data pertains to the pipe as a whole.  The internal facies variation and relative diamond content is not known and is considered a limiting factor in the resources not being upgraded to the Measured category.  The diamond grade is based on plant recovered grades and is sensitive to liberation issues, plant recovery fficiency, and final recovery techniques used. The Resource Grade is not a measure of total diamond content but rather a measure of what may be reasonably recovered from a processing operation using similar processing and recovery methodology.  Cut-off grades are not used in this resource estimation however the Mineral Resource and Ore Reserve estimates have been reported at +5DTC lower sieve size. The resource estimation is based upon bulk samples that were processed using a lower slotted screen size of +0.8mm and +0.95mm.  Detailed diamond grade models have been determined based on the contribution to grade of various diamond size fractions.  The level of confidence in the grade for the drilling data is lower than for the mining data and is reflected in the resource category.  A diamond grade has been determined and applied to each individual deposit (kimberlite pipe) based on the assumption that the diamonds at the Merlin deposits are homogenously distributed throughout the pipes and that this distribution does not vary with increasing depth.  The continuity of grade at depth in the absence of large bulk samples relies on several key assumptions  Diamonds are distribute
		<ul> <li>provided there is no material change in kimberlite lithology and density.</li> <li>There is no evidence in the drilling data to suggest the kimberlite lithology is materially different at depth.</li> </ul>
		<ul> <li>The Mineral Resource has been classified as Indicated and Inferred and the Ore Reserve as</li> </ul>

Criteria	JORC Code explanation	Commentary	
		Probable	

## APPENDIX C – DRILLHOLE INFORMATION, PLANS AND CROSS SECTIONS

IOMBVP-001   642632.0   8142661.2   170.9   179.4   BEDEVERE   90   0   144   144   145   10MBVP-001   642632.0   8142661.2   170.9   179.4   BEDEVERE   90   0   144.4   155   10MBVP-002   642609.8   81426645.1   170.8   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-001   642609.8   8142645.1   170.8   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-004   642619.7   8142645.1   171.0   6.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-004   642619.7   8142645.1   171.0   6.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005   642633.7   8142645.0   170.9   170.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005   642633.7   8142645.0   170.8   240.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005   642634.7   8142645.2   170.8   46.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007   642634.7   8142645.2   170.8   46.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-008   642604.8   8142645.2   170.8   180.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642621.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642627.0   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642631.6   8142632.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642635.4   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642640.5   8142631.5   170.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642641.5   8142631.5   170.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642641.5   8142631.5   170.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642641.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642641.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-035   642641.5   8142661.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642641.5   8142661.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642641.5   8142661.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A	HOLE NAME	EASTING		COLLAR	MAX DEPTH	LOCALITY	DIP	AZIMUTH		KIMBERLITE
10MBVP-001 642632.0   81426612.1   710.9   179.4   BEDEVERE   90   0   144.4   151   10MBVR-002 642600.4   8142648.3   171.0   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-003 642614.0   8142645.1   170.8   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-003 642614.0   8142645.1   171.0   6.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005 642637.7   8142645.0   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005 642632.3   8142645.0   170.8   24.0   BEDEVERE   90   0   N/A   N/A   10MBVR-005 642632.3   8142645.0   170.8   24.0   BEDEVERE   90   0   N/A   N/A   10MBVR-007 642634.7   8142645.2   170.8   48.0   BEDEVERE   90   0   N/A   N/A   10MBVR-007 642634.7   8142645.2   170.8   48.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007 642634.7   8142645.2   170.8   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007 642634.7   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-017 642631.6   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019 642627.0   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019 642625.4   8142631.8   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642631.6   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642645.5   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-025   642645.5   8142631.6   170.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-025   642645.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64261.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   10MBVR-036   64261.5   8142661.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64261.5   8142661.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64261.5   8142661.5   171.3   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64261.5   8142660.6   171.3   24.0   BEDEVE		(GDA94)	(GDA94)	(mRL)	(m)	200,12	(degrees)	(degrees)	FROM (m)	TO (m)
10MBVR-001 642600.4   8142648.3   171.0   12.0   8EDEVERE   90   0   N/A   N	10MBVD-001	642632.0	8142661.2	170.9	179.4	BEDEVERE	-90	0	44	144.4
10MBVR-002   642609.8   8142645.1   170.8   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-003   642614.0   8142645.1   171.0   6.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-004   642619.7   8142645.0   170.9   17.0   BEDEVERE   90   0   N/A   N/A   N/A   N/A   10MBVR-005   642623.7   8142645.0   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007   642634.7   8142645.2   170.8   46.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007   642634.7   8142645.2   170.8   18.0   BEDEVERE   90   0   N/A   N/A   N/A   N/A   10MBVR-007   642634.1   8142632.0   171.1   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642627.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642627.0   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642627.0   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642627.0   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642631.6   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642631.6   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642640.5   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642640.5   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642640.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-030   642640.5   8142661.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-031   642627.5   8142661.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-031   642627.5   814267.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-033   64261.4   8142670.5   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-035   64261.4   8142670.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64261.4   8142670.3   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-037   64263.0   8142672.3   171.1   18.0   BEDEVERE   90   0   N/A   N/A	IOMBVD-001	642632.0	8142661.2	170.9	179.4	BEDEVERE	-90	0	144.4	158.6
10MBVR-003   642614.0   8142645.1   171.0   6.0   BEDEVERE   90   0   N/A	LOMBVR-001	642600.4	8142648.3	171.0	12.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-004   642619.7   8142644.9   171.0   12.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005   642623.7   8142645.0   170.9   17.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-005   642623.8   8142645.2   170.8   46.0   BEDEVERE   90   0   N/A   N	LOMBVR-002	642609.8	8142645.1	170.8	12.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-005   642623.7   8142645.0   170.9   17.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-006   642629.8   8142645.2   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-007   642634.7   8142645.2   170.8   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-017   642616.1   8142632.0   171.1   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-018   642621.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-018   642621.2   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642631.6   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642635.4   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642635.4   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642640.5   8142631.3   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142631.3   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142631.5   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142631.5   170.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-030   64261.6   8142659.5   170.7   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-030   64261.6   8142659.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-031   642627.5   8142671.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-035   64261.1   8142671.5   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142671.5   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142671.3   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142673.4   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142673.4   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142660.4   170.5   78.0   BEDEVERE   90   0   N/A   N/A   10MBVR-036	LOMBVR-003	642614.0	8142645.1	171.0	6.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-006 642629.8 8142645.0 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-007 642634.7 8142645.2 170.8 46.0 BEDEVERE 90 0 0 43.5 46 10MBVR-008 642640.4 8142645.4 170.8 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-017 642616.1 8142631.5 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-019 642627.0 8142631.2 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.2 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.2 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.2 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-020 642631.6 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142629.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142629.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642642.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642621.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642621.7 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642617.4 8142671.0 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A N/A 10MBVR-035 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A N/A 10MBVR-035 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 N/A N/A N/A N/A N/A 10MBVR-039 642632.9 8142660.4 170.5 8.0 BEDEVERE 90 N/A N/A N/A N/A N/A N/A 10MBVR-039 642632.9 8142660.4 170.5 8.0 BEDEVERE 90 N/A	LOMBVR-004	642619.7	8142644.9	171.0	12.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-007   642634.7   8142645.2   170.8   46.0   BEDEVERE   90   0   43.5   46   10MBVR-008   642640.4   8142645.4   170.8   18.0   BEDEVERE   90   0   0   N/A   N/A   N/A   10MBVR-017   642616.1   8142632.0   171.1   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-018   642621.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642631.6   8142632.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642631.6   8142632.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642634.5   8142631.5   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642640.5   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642640.5   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642642.5   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   64261.5   8142661.4   171.0   30.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-030   64261.5   8142660.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-031   642627.5   8142676.5   171.3   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-034   642617.4   8142671.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642612.1   8142671.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642612.1   8142671.5   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642637.3   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-037   642621.3   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642637.3   8142673.4   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.0   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.8   8142662.6   171.3   8.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.8   8142663.5   171.4   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   64263.8   8142663.5   171.4   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR	IOMBVR-005	642623.7	8142645.0	170.9	17.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-008   642640.4   8142645.4   170.8   18.0   BEDEVERE   90   0   0   N/A   N/A   N/A   10MBVR-017   642616.1   8142632.0   171.1   24.0   BEDEVERE   90   0   N/A   N/A   N/A   N/A   10MBVR-018   642621.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-019   642621.0   8142631.2   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-020   642631.6   8142631.3   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-021   642635.4   8142631.9   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-022   642635.4   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142631.8   170.8   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642645.0   8142661.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-023   642641.5   8142661.4   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-030   642611.6   8142659.7   171.0   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-031   642627.5   8142660.5   171.3   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-033   642621.4   8142671.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-033   642621.4   8142671.5   171.2   24.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-035   642632.0   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642632.0   8142672.1   171.2   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-037   642637.0   8142672.3   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-036   642632.0   8142673.3   171.1   18.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-044   642586.6   8142662.6   171.3   78.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-044   642586.6   8142662.6   171.3   78.0   BEDEVERE   90   0   N/A   N/A   N/A   10MBVR-044   642586.6   8142662.6   171.3   78.0   BEDEVERE   63   90   53   70   10MBVR-049   642632.0   8142662.6   171.3   78.0   BEDEVERE   63   90   70   70   78   10MBVR-049   642632.6   8142663.3   171.1   258.0   BEDEVERE   83   0   158   20   10	LOMBVR-006	642629.8	8142645.0	170.8	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-017   642616.1   8142632.0   171.1   24.0   BEDEVERE   90   0   N/A	LOMBVR-007	642634.7	8142645.2	170.8	46.0	BEDEVERE	-90	0	43.5	46
10MBVR-018   642621.2   8142631.5   171.0   24.0   BEDEVERE   90   0   N/A	LOMBVR-008	642640.4	8142645.4	170.8	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-019 642627.0 8142631.2 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A N/A 10MBVR-020 642631.6 8142631.3 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-021 642635.4 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-022 642640.5 8142631.8 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142632.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642671.8 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642611.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.8 8142635.2 170.9 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642638.8 8142635.2 170.9 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-034 642671.9 8142660.4 170.5 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.5 171.3 254.0 BEDEVERE 80 180 N/A N/A N/A 10MBVR-044 642586.6 8142662.5 171.3 254.0 BEDEVERE 80 180 N/A N/A N/A 10MBVR-044 642586.6 8142662.5 171.4 258.0 BEDEVERE 80 180 N/A N/A N/A 10MBVR-045 642588.8 8142695.5 171.4 258.0 BEDEVERE 80 0 N/A N/A N/A 10MBVR-045 642583.8 8142685.5 171.4 258.0 BEDEVERE 80 0 N/A N/A N/A 10MBVR-045 642583.8 8	IOMBVR-017	642616.1	8142632.0	171.1	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-020 642631.6 8142632.3 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-021 642635.4 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-022 642640.5 8142631.8 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142631.8 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 81426629.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.5 171.3 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642627.5 8142670.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642621.4 8142671.0 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-038 642642.6 8142673.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-038 642642.6 8142673.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642688.9 8142635.2 170.9 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-040 642671.9 8142660.4 170.5 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-040 642671.9 8142660.4 170.5 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-040 642630.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-040 642586.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 70 70 78 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 70 70 78 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 70 70 78 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 63 90 70 70 78 10MBVR-040 642580.6 8142662.6 171.3 78.0 BEDEVERE 60 90 70 N/A	IOMBVR-018	642621.2	8142631.5	171.0	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-021 642635.4 8142631.9 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-022 642640.5 8142631.8 170.8 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-023 642645.0 8142629.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-028 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642611.6 8142676.5 171.3 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642611.8 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642611.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642671.9 8142660.4 170.5 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642671.9 8142665.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 63 90 53 70 10MBVR-046 642578.5 8142662.5 171.2 60.0 BEDEVERE 63 90 70 78 10MBVR-046 642581.8 8142612.5 171.2 60.0 BEDEVERE 63 90 32 70 70 78 10MBVR-045 642613.0 8142612.5 171.2 60.0 BEDEVERE 63 90 70 72 81 10MBVR-045 642613.0 8142612.5 171.2 60.0 BEDEVERE 63 0 158 200 158 200 10MBVR-045 642613.0 8142612.5 171.2 60.0 BEDEVERE 80 180 N/A	IOMBVR-019	642627.0	8142631.2	171.0	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-022 642640.5 8142631.8 170.8 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-023 642645.0 8142629.5 170.7 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-034 642612.1 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642612.1 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642632.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-039 642628.9 8142633.2 170.9 18.0 BEDEVERE -90 0 N/A N/A N/A N/A 10MBVR-039 642628.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -61 263 48 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-049 642632.0 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-049 642632.0 8142662.5 171.3 254.0 BEDEVERE -63 90 70 78 10MBVR-049 642588.6 8142665.2 171.3 254.0 BEDEVERE -63 90 70 78 10MBVR-049 642588.8 8142665.1 171.3 264.0 BEDEVERE -83 160 N/A N/A N/A 10MBVR-051 642553.3 8142663.1 171.5 300.0 BEDEVERE -83 0 158 200 10MBVR-051 642553.3 8142663.1 171.5 300.0 BEDEVERE -80 180 N/A N/A N/A 10MBVR-051 642553.3 8142663.1 171.2 60.0 BEDEVERE -80 60 151 198 110MBVR-051 642553.3 8142663.1 171.2 60.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-051 642553.3 8142663.1 171.2 96.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-053 642577.2 8142663.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-053 642577.2 8142663.9 171.4 198.0 BEDEVERE -90 0 N/A 151 198 110MBVR-053 642577.5 81426	LOMBVR-020	642631.6	8142632.3	171.0	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-023 642645.0 8142629.5 170.7 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642611.6 8142659.7 171.0 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-031 642621.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-033 642611.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-034 642611.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-034 642611.4 8142671.5 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-035 642632.0 8142672.1 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142673.4 171.1 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142652.5 170.9 18.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-039 642632.0 8142662.6 170.5 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-041 642586.6 8142662.6 171.3 78.0 BEDEVERE 90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 90 70 70 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE 90 70 70 78 10MBVR-046 642587.8 8142602.2 171.3 254.0 BEDEVERE 90 180 N/A N/A N/A 10MBVR-045 642588.8 8142692.5 171.2 60.0 BEDEVERE 93 160 N/A N/A 10MBVR-045 642588.8 8142695.5 171.4 258.0 BEDEVERE 93 160 N/A N/A 10MBVR-051 642553.3 8142658.1 171.5 300.0 BEDEVERE 90 N/A N/A N/A 10MBVR-051 642553.3 8142668.1 171.2 60.0 BEDEVERE 90 N/A N/A N/A 10MBVR-051 642553.3 8142668.1 171.2 96.0 BEDEVERE 90 N/A N/A N/A 10MBVR-051 642553.3 8142668.9 171.4 258.0 BEDEVERE 90 N/A N/A N/A 10MBVR-053 642577.2 8142668.9 171.2 96.0 BEDEVERE 90 N/A N/A 10MBVR-053 642577.5 8142668.9 171.2 96.0 BEDEVERE 90 N/A 44 96 BH0480 64266.5 8142661.1 171.2 48.5 BEDEVERE 90 N/A N/A 10MBVR	IOMBVR-021	642635.4	8142631.9	170.8	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-025 642642.5 8142661.4 171.0 30.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.1 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-039 642628.9 8142633.2 170.9 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-040 642671.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -61 263 48 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-046 642578.5 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N/A 10MBVR-046 642578.5 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N/A N/A 10MBVR-046 642578.5 8142662.5 171.3 254.0 BEDEVERE -83 0 158 20 10MBVR-049 64263.0 8142612.9 171.3 204.0 BEDEVERE -83 0 158 20 10MBVR-049 64263.0 8142612.5 171.2 60.0 BEDEVERE -83 160 N/A N/A N/A 10MBVR-051 642553.3 8142685.1 171.5 300.0 BEDEVERE -83 60 151 199 10MBVR-052 642717.6 8142648.8 171.1 32.0 BEDEVERE -80 60 151 199 10MBVR-053 64257.5 814268.8 171.1 32.0 BEDEVERE -80 60 151 199 10MBVR-053 64257.5 814268.8 171.1 32.0 BEDEVERE -80 60 151 199 10MBVR-053 64257.6 8142668.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A N/A 10MBVR-053 64257.6 8142648.8 171.1 32.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-053 64257.6 8142668.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-053 64256.6 8142668.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-053 64256.5 8142668.9 171.2	IOMBVR-022	642640.5	8142631.8	170.8	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-028 642621.9 8142660.4 171.0 24.0 BEDEVERE -90 0 N/A N// 10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE -90 0 N/A N// 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE -90 0 N/A N// 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N// 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N// 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N// 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N// 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N// 10MBVR-037 642633.0 8142672.1 171.1 18.0 BEDEVERE -90 0 N/A N// 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N// 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N// 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N// 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -61 263 48 78 10MBVR-044 64258.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-046 642578.5 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-046 642578.5 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N// 10MBVR-046 642578.5 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N// 10MBVR-046 64258.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-046 642578.5 8142612.9 171.3 254.0 BEDEVERE -80 180 N/A N// 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -83 0 158 20. 10MBVR-049 64258.8 8142665.5 171.4 258.0 BEDEVERE -83 0 158 20. 10MBVR-050 642588.8 8142665.5 171.4 258.0 BEDEVERE -83 160 N/A N// 10MBVR-051 64255.3 8142612.5 171.2 60.0 BEDEVERE -83 60 151 198 BH0343 642627.3 8142648.8 171.1 180.0 BEDEVERE -80 60 151 198 BH0343 642627.3 8142648.8 171.1 32.0 BEDEVERE -90 0 N/A N// BH0408 64262.6 814268.9 171.2 96.0 BEDEVERE -90 0 42 96 BH0409 64262.6 8142661.1 171.2 48.5 BEDEVERE -90 0 42.3 48. BH0693 642615.4 8142661.1 171.2 48.5 BEDEVERE -90 0 0 A/A N// BH0408 64262.5 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N// BH0408 64261.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N//	10MBVR-023	642645.0	8142629.5	170.7	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-030 642611.6 8142659.7 171.0 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-039 642688.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-031 642671.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A 10MBVR-040 642681.4 8142657.5 170.4 162.0 BEDEVERE -61 263 48 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N/A 10MBVR-049 642586.6 8142662.6 171.3 78.0 BEDEVERE -80 180 N/A N/A 10MBVR-049 64258.8 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-049 64258.8 8142612.9 171.3 204.0 BEDEVERE -80 180 N/A N/A 10MBVR-050 642583.8 8142635.1 171.2 60.0 BEDEVERE -83 0 158 204 10MBVR-050 642533.3 8142635.3 170.2 240.0 BEDEVERE -80 60 151 198 BH0343 642627.3 8142648.8 171.1 32.0 BEDEVERE -80 60 151 198 BH0343 64262.6 8142662.9 171.2 96.0 BEDEVERE -80 0 N/A N/A N/A BH0408 64265.6 8142668.9 171.2 96.0 BEDEVERE -90 0 N/A N/A N/A BH0408 64265.6 8142668.9 171.2 96.0 BEDEVERE -90 0 N/A N/A N/A BH0408 64265.6 8142668.9 171.2 96.0 BEDEVERE -90 0 A 42.3 48. BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.6 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 64265.6 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642665.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N	10MBVR-025	642642.5	8142661.4	171.0	30.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-031 642627.5 8142676.5 171.3 24.0 BEDEVERE 90 0 N/A N// 10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE 90 0 N/A N// 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE 90 0 N/A N// 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE 90 0 N/A N// 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE 90 0 N/A N// 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE 90 0 N/A N// 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE 90 0 N/A N// 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE 90 0 N/A N// 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE 90 0 N/A N// 10MBVR-042 64268.6 8142662.6 171.3 78.0 BEDEVERE -61 263 48 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 642578.5 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N// 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -83 0 158 204 10MBVR-049 64258.8 8142658.1 171.5 300.0 BEDEVERE -83 160 N/A N// 10MBVR-050 642588.8 8142696.5 171.4 258.0 BEDEVERE -78 90 N/A N// 10MBVR-050 642588.8 8142645.3 170.2 240.0 BEDEVERE -78 90 N/A N// 10MBVR-050 642588.8 142645.3 170.2 240.0 BEDEVERE -80 60 151 198 BH0343 642627.3 8142648.8 171.1 32.0 BEDEVERE -80 60 151 198 BH0343 642627.6 8142668.9 171.2 96.0 BEDEVERE -90 0 N/A N// BH0408 64265.6 8142668.9 171.2 96.0 BEDEVERE -90 0 42.3 48 BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N// BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N//	10MBVR-028	642621.9	8142660.4	171.0	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-033 642621.4 8142671.5 171.2 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-034 642617.4 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A N/A 10MBVR-042 642681.4 8142657.5 170.4 162.0 BEDEVERE -61 263 48 78 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-046 642578.5 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N/A N/A 10MBVR-049 642632.0 8142612.9 171.3 204.0 BEDEVERE -83 0 158 204 10MBVR-049 642632.0 8142612.5 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-050 642588.8 8142696.5 171.4 258.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A BH0408 642625.6 8142669.9 171.2 96.0 BEDEVERE -90 0 422 96 BH0409 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 442 96 BH0409 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 0 N/A N/A N/A BH0408 642615.8 8142661.1 171.2 48.5 BEDEVERE -90 0 0 N/A N/A BH0408 642615.8 8142661.1 171.2 48.5 BEDEVERE -90 0 0 N/A N/A BH0408 642615.8 8142651.3 172.1 250.0 BEDEVERE -90 0 0 N/A N/A BH0408 642615.4 8142651.3 172.1 250.0 BEDEVERE -90 0 N/A N/A BH0409 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A BH0409 642615.4 8142651.3 172.1 250.0 BEDEVERE -90 0 N/A N/A BH0409 642615.4 8142651.3 172.1 250.0 BEDEVERE -90 0 N/A N/A BH0409 642615.4 8142651.3 172.1 250.0 BEDEVERE -90 0 N/A N/A BH0409 642615.4 8142651.3 172.1 250.0 BEDEVERE -90 0 N/A N/A BH0409 642615.4 8142651.3 172.1 250	10MBVR-030	642611.6	8142659.7	171.0	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-034 64261.4 8142671.0 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-039 642628.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -61 263 48 78 10MBVR-041 642681.4 8142657.5 170.4 162.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 642586.6 8142662.6 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-048 642619.6 8142612.9 171.3 204.0 BEDEVERE -83 0 158 204 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -63 0 50 50 60 10MBVR-049 642583.8 8142695.1 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-050 642588.8 8142695.1 171.5 300.0 BEDEVERE -83 160 N/A N/A 10MBVR-050 642588.8 8142695.1 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-051 642553.3 8142653.1 171.5 300.0 BEDEVERE -80 60 151 191 BH0343 64267.3 8142648.8 171.1 32.0 BEDEVERE -80 60 151 191 BH0343 64267.3 8142668.9 171.4 198.0 BEDEVERE -90 0 422 96 BH0409 64262.6 8142661.1 171.2 48.5 BEDEVERE -90 0 423 48. BH0693 64261.5 8142661.1 171.2 48.5 BEDEVERE -90 0 0 N/A N/A N/A BH0408 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 64261.5 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 64261.5 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 64261.5 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0408 64261.5 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 64261.5 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 64261.5 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 64261.5 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 64261.5 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409	10MBVR-031	642627.5	8142676.5	171.3	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-035 642612.1 8142670.6 171.4 24.0 BEDEVERE -90 0 N/A N/A 10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -90 0 N/A N/A 10MBVR-042 642681.4 8142657.5 170.4 162.0 BEDEVERE -61 263 48 78 10MBVR-042 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 64258.5 8142602.1 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-048 642619.6 8142612.9 171.3 204.0 BEDEVERE -80 180 N/A N/A 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -83 0 158 204 10MBVR-049 642583. 8142665.1 171.5 300.0 BEDEVERE -83 160 N/A N/A 10MBVR-050 642588.8 8142695.1 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-051 642553.3 8142658.1 171.5 300.0 BEDEVERE -80 60 151 191 BH0343 64267.3 8142648.8 171.1 32.0 BEDEVERE -80 60 151 191 BH0343 64267.8 8142668.9 171.2 96.0 BEDEVERE -90 0 422 96 BH0409 642625.6 8142661.1 171.2 48.5 BEDEVERE -90 0 423 48. BH0693 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0408 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142661.1 171.2 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A	10MBVR-033	642621.4	8142671.5	171.2	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-036 642632.0 8142672.1 171.2 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -61 263 48 78 10MBVR-042 642681.4 8142657.5 170.4 162.0 BEDEVERE -75 267 N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 642578.5 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-049 642632.0 8142612.9 171.3 204.0 BEDEVERE -83 0 158 204 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -63 0 50 60 10MBVR-050 642588.8 8142665.1 171.5 300.0 BEDEVERE -83 160 N/A N/A 10MBVR-051 642553.3 8142645.3 170.2 240.0 BEDEVERE -78 90 N/A N/A 10MBVR-052 642717.6 8142645.3 170.2 240.0 BEDEVERE -80 60 151 198 BH0343 642627.3 8142630.9 171.4 198.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A BH0408 642625.6 8142668.9 171.2 96.0 BEDEVERE -90 0 42 96 BH0480 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 42.3 48. BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A N/A BH0409 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0409 642625.8 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A	10MBVR-034	642617.4	8142671.0	171.2	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-037 642637.0 8142672.3 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-038 642642.6 8142673.4 171.1 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-039 642628.9 8142635.2 170.9 18.0 BEDEVERE -90 0 N/A N/A 10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -61 263 48 78 10MBVR-042 642681.4 8142657.5 170.4 162.0 BEDEVERE -65 267 N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 642578.5 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-048 642619.6 8142612.9 171.3 204.0 BEDEVERE -83 0 158 204 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -63 0 50 60 10MBVR-050 642588.8 8142696.5 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-051 642553.3 8142645.3 170.2 240.0 BEDEVERE -78 90 N/A N/A 10MBVR-052 642717.6 8142645.3 170.2 240.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -60 0 N/A N/A N/A 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -90 0 N/A N/A N/A BH0408 64262.6 8142662.9 171.2 96.0 BEDEVERE -90 0 42 96 BH0409 64262.6 8142661.1 171.2 96.0 BEDEVERE -90 0 42 96 BH0409 64262.6 8142661.1 171.2 48.5 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A N/A BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A	10MBVR-035	642612.1	8142670.6	171.4	24.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-038         642642.6         8142673.4         171.1         18.0         BEDEVERE         -90         0         N/A         N//           10MBVR-039         642628.9         8142635.2         170.9         18.0         BEDEVERE         -90         0         N/A         N//           10MBVR-041         642671.9         8142660.4         170.5         78.0         BEDEVERE         -61         263         48         78           10MBVR-042         642681.4         8142657.5         170.4         162.0         BEDEVERE         -75         267         N/A         N//           10MBVR-044         642586.6         8142662.6         171.3         78.0         BEDEVERE         -63         90         53         70           10MBVR-046         642578.5         8142708.2         171.3         254.0         BEDEVERE         -80         180         N/A         N//           10MBVR-048         642619.6         8142612.9         171.3         204.0         BEDEVERE         -83         0         158         204           10MBVR-049         642632.0         8142612.5         171.2         60.0         BEDEVERE         -83         0         50         60	10MBVR-036	642632.0	8142672.1	171.2	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-038         642642.6         8142673.4         171.1         18.0         BEDEVERE         -90         0         N/A         N//           10MBVR-039         642628.9         8142635.2         170.9         18.0         BEDEVERE         -90         0         N/A         N//           10MBVR-041         642671.9         8142660.4         170.5         78.0         BEDEVERE         -61         263         48         78           10MBVR-042         642681.4         8142657.5         170.4         162.0         BEDEVERE         -75         267         N/A         N//           10MBVR-044         642586.6         8142662.6         171.3         78.0         BEDEVERE         -63         90         53         70           10MBVR-046         642578.5         8142708.2         171.3         254.0         BEDEVERE         -80         180         N/A         N//           10MBVR-048         642619.6         8142612.9         171.3         204.0         BEDEVERE         -83         0         158         204           10MBVR-049         642632.0         8142612.5         171.2         60.0         BEDEVERE         -83         0         50         60	10MBVR-037	642637.0	8142672.3	171.1	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-041 642671.9 8142660.4 170.5 78.0 BEDEVERE -61 263 48 78 10MBVR-042 642681.4 8142657.5 170.4 162.0 BEDEVERE -75 267 N/A N/A 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 53 70 10MBVR-044 642586.6 8142662.6 171.3 78.0 BEDEVERE -63 90 70 78 10MBVR-046 642578.5 8142708.2 171.3 254.0 BEDEVERE -80 180 N/A N/A 10MBVR-048 642619.6 8142612.9 171.3 204.0 BEDEVERE -83 0 158 204 10MBVR-049 642632.0 8142612.5 171.2 60.0 BEDEVERE -63 0 50 60 10MBVR-050 642588.8 8142696.5 171.4 258.0 BEDEVERE -83 160 N/A N/A 10MBVR-051 642553.3 8142658.1 171.5 300.0 BEDEVERE -78 90 N/A N/A 10MBVR-052 642717.6 8142645.3 170.2 240.0 BEDEVERE -63 270 210 234 10MBVR-053 642577.2 8142630.9 171.4 198.0 BEDEVERE -80 60 151 198 BH0343 642627.3 8142658.8 171.1 32.0 BEDEVERE -90 0 N/A N/A BH0408 642625.6 8142668.9 171.2 96.0 BEDEVERE -90 0 42 96 BH0409 642627.6 8142661.1 171.2 48.5 BEDEVERE -90 0 42.3 48. BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A	10MBVR-038			171.1	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-042         642681.4         8142657.5         170.4         162.0         BEDEVERE         -75         267         N/A         N//           10MBVR-044         642586.6         8142662.6         171.3         78.0         BEDEVERE         -63         90         53         70           10MBVR-044         642586.6         8142662.6         171.3         78.0         BEDEVERE         -63         90         70         78           10MBVR-046         642578.5         8142708.2         171.3         254.0         BEDEVERE         -80         180         N/A         N/A           10MBVR-048         642619.6         8142612.9         171.3         204.0         BEDEVERE         -83         0         158         204           10MBVR-049         642632.0         8142612.5         171.2         60.0         BEDEVERE         -63         0         50         60           10MBVR-050         642588.8         8142696.5         171.4         258.0         BEDEVERE         -83         160         N/A         N//A           10MBVR-051         642553.3         8142645.3         170.2         240.0         BEDEVERE         -78         90         N/A         N//A	10MBVR-039	642628.9	8142635.2	170.9	18.0	BEDEVERE	-90	0	N/A	N/A
10MBVR-044       642586.6       8142662.6       171.3       78.0       BEDEVERE       -63       90       53       70         10MBVR-044       642586.6       8142662.6       171.3       78.0       BEDEVERE       -63       90       70       78         10MBVR-046       642578.5       8142708.2       171.3       254.0       BEDEVERE       -80       180       N/A       N//A         10MBVR-048       642619.6       8142612.9       171.3       204.0       BEDEVERE       -83       0       158       204         10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N//A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N//A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE <td< td=""><td>10MBVR-041</td><td>642671.9</td><td>8142660.4</td><td>170.5</td><td>78.0</td><td>BEDEVERE</td><td>-61</td><td>263</td><td>48</td><td>78</td></td<>	10MBVR-041	642671.9	8142660.4	170.5	78.0	BEDEVERE	-61	263	48	78
10MBVR-044       642586.6       8142662.6       171.3       78.0       BEDEVERE       -63       90       53       70         10MBVR-044       642586.6       8142662.6       171.3       78.0       BEDEVERE       -63       90       70       78         10MBVR-046       642578.5       8142708.2       171.3       254.0       BEDEVERE       -80       180       N/A       N//A         10MBVR-048       642619.6       8142612.9       171.3       204.0       BEDEVERE       -83       0       158       204         10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N//A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N//A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE <td< td=""><td>10MBVR-042</td><td>642681.4</td><td>8142657.5</td><td>170.4</td><td>162.0</td><td>BEDEVERE</td><td>-75</td><td>267</td><td>N/A</td><td>N/A</td></td<>	10MBVR-042	642681.4	8142657.5	170.4	162.0	BEDEVERE	-75	267	N/A	N/A
10MBVR-044       642586.6       8142662.6       171.3       78.0       BEDEVERE       -63       90       70       78         10MBVR-046       642578.5       8142708.2       171.3       254.0       BEDEVERE       -80       180       N/A       N//A         10MBVR-048       642619.6       8142612.9       171.3       204.0       BEDEVERE       -83       0       158       204         10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N/A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0408       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90					78.0					
10MBVR-046       642578.5       8142708.2       171.3       254.0       BEDEVERE       -80       180       N/A       N/A         10MBVR-048       642619.6       8142612.9       171.3       204.0       BEDEVERE       -83       0       158       204         10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N/A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0409       642625.6       8142669.9       171.2       96.0       BEDEVERE       -90 <td>10MBVR-044</td> <td>642586.6</td> <td>8142662.6</td> <td>171.3</td> <td>78.0</td> <td>BEDEVERE</td> <td>-63</td> <td>90</td> <td>70</td> <td>78</td>	10MBVR-044	642586.6	8142662.6	171.3	78.0	BEDEVERE	-63	90	70	78
10MBVR-048       642619.6       8142612.9       171.3       204.0       BEDEVERE       -83       0       158       204.0         10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N/A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90							-80		N/A	N/A
10MBVR-049       642632.0       8142612.5       171.2       60.0       BEDEVERE       -63       0       50       60         10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N/A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0										204
10MBVR-050       642588.8       8142696.5       171.4       258.0       BEDEVERE       -83       160       N/A       N/A         10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       N/A       N/A         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0										
10MBVR-051       642553.3       8142658.1       171.5       300.0       BEDEVERE       -78       90       N/A       N/A         10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       64266.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A								160		N/A
10MBVR-052       642717.6       8142645.3       170.2       240.0       BEDEVERE       -63       270       210       234         10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A										N/A
10MBVR-053       642577.2       8142630.9       171.4       198.0       BEDEVERE       -80       60       151       198.0         BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N//A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A									-	234
BH0343       642627.3       8142648.8       171.1       32.0       BEDEVERE       -90       0       N/A       N/A         BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A									-	198
BH0408       642625.6       8142652.9       171.2       96.0       BEDEVERE       -90       0       42       96         BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A									+	N/A
BH0409       642627.6       8142668.9       171.2       96.0       BEDEVERE       -90       0       44       96         BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A									-	
BH0480       642626.5       8142661.1       171.2       48.5       BEDEVERE       -90       0       42.3       48.5         BH0693       642615.4       8142651.3       172.1       25.0       BEDEVERE       -90       0       N/A       N/A										
BH0693 642615.4 8142651.3 172.1 25.0 BEDEVERE -90 0 N/A N/A										48.5
										N/A
2.10.10									-	101
BH0403   641748.0   8141387.4   184.1   113.0   ECTOR   -90   0   11   113										113
										22
										48.75
BH0429 641695.7 8141389.2 184.7 17.0 ECTOR -90 0 14 17										
										N/A

HOLE NAME	EASTING		COLLAR	MAX DEPTH	LOCALITY	DIP	AZIMUTH		KIMBERLITE
	(GDA94)	(GDA94)	(mRL)	(m)		(degrees)	(degrees)	FROM (m)	TO (m)
BH0431	641746.8	8141350.7	184.2	14.0	ECTOR	-90	0	12	14
BH0432	641746.9	8141335.3	184.3	17.0	ECTOR	-90	0	N/A	N/A
BH0437	641795.4	8141340.9	183.6	20.0	ECTOR	-90	0	19	20
BH0438	641794.8	8141327.8	183.4	20.0	ECTOR	-90	0	N/A	N/A
BH0439	641812.4	8141365.3	183.3	25.0	ECTOR	-90	0	15	25
BH0440	641823.4	8141412.2	182.4	20.0	ECTOR	-90	0	N/A	N/A
BH0441	641809.3	8141414.6	182.7	20.0	ECTOR	-90	0	N/A	N/A
BH0442	641824.8	8141365.6	183.1	20.0	ECTOR	-90	0	N/A	N/A
BH0443	641762.4	8141365.3	184.3	17.0	ECTOR	-90	0	15	17
BH0444	641777.4	8141390.3	184.0	14.0	ECTOR	-90	0	11	14
BH0445	641804.1	8141415.4	182.8	16.0	ECTOR	-90	0	12	16
MBH-003	641708.1	8141383.4	184.5	102.0	ECTOR	-90	0	14	102
MBH-004	641766.2	8141381.3	183.8	81.5	ECTOR	-90	0	12	81.5
MBH-005	641806.4	8141380.7	183.0	60.0	ECTOR	-90	0	12	60
MBH-006	641839.8	8141379.7	182.4	84.0	ECTOR	-90	0	29	50
MBH-007	641751.5	8141351.0	184.2	88.0	ECTOR	-90	0	12	88
MBH-008	641750.7	8141371.8	184.2	88.0	ECTOR	-90	0	12	88
MBH-009	641753.2	8141411.9	183.9	42.0	ECTOR	-90	0	11	42
MBH-010	641752.9	8141431.7	184.0	72.0	ECTOR	-90	0	12	72
MCT-001	641751.7	8141319.8	183.0	202.3	ECTOR	-55	55	20	195.6
MCT-002	641691.6	8141367.8	181.2	171.5	ECTOR	-55	22	15	166.8
MEC-001	641836.2	8141427.4	182.4	58.0	ECTOR	-60	240	50	58
MEC-002	641837.9	8141316.4	182.3	66.0	ECTOR	-60	315	63	66
MEC-003	641747.7	8141301.7	184.7	76.0	ECTOR	-60	12	73	76
MEC-004	641655.8	8141404.6	185.3	58.0	ECTOR	-60	95	33	58
MEC-005	641747.4	8141451.3	186.0	38.0	ECTOR	-60	180	33	38
MEC-006	641784.2	8141493.3	182.6	40.0	ECTOR	-70	180	N/A	N/A
MEC-008	641859.4	8141444.9	181.8	100.0	ECTOR	-60	240	98	100
MEC-009	641877.7	8141508.4	181.7	184.0	ECTOR	-60	208	180	184
BH0059	642913.4		175.0	20.0	EXCALIBUR		0	N/A	N/A
BH0101	642925.4	8135750.3 8135747.3	177.0	69.5	EXCALIBUR	-90	0	25	26.3
BH0101	642925.4	8135747.3	177.0	69.5	EXCALIBUR	-90	0	26.3	69.5
BH0101				42.0	EXCALIBUR	-90	0	26	42
	642918.7	8135746.8	178.0						
BH0103	642948.4	8135774.3	180.0	30.0	EXCALIBUR	-90	0	N/A	N/A
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	132.1	141.25
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	129	131.77
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	141.6	143.1
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	148.05	155.25
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	199.2	199.35
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	155.45	183
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	227.5	248.91
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	147	147.95
BH0113	642848.1	8135759.5	178.5	258.5	EXCALIBUR	-58	111	183.5	196
BH0146	642921.4	8135736.3	175.0	40.0	EXCALIBUR	-90	0	N/A	N/A
BH0400B	642900.2	8135796.7	179.7	242.0	EXCALIBUR	-57	164	103	104.2
BH0400B	642900.2	8135796.7	179.7	242.0	EXCALIBUR	-57	164	106.5	223
BH0414	642905.1	8135727.4	177.2	102.0	EXCALIBUR	-90	0	26	102
BH0415	642911.2	8135745.8	178.1	83.0	EXCALIBUR	-90	0	28	83
BH0416	642910.2	8135735.8	177.7	66.0	EXCALIBUR	-90	0	24	66
BH0464	642952.4	8135750.3	175.0	20.0	EXCALIBUR	-90	0	19.6	20

HOLE NAME	EASTING	NORTHING	COLLAR	MAX DEPTH	LOCALITY	DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE IVAIVIE	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITY	(degrees)	(degrees)	FROM (m)	TO (m)
BH0635	642937.1	8135745.0	178.6	24.0	EXCALIBUR	-60	90	N/A	N/A
BH0665	642979.4	8135709.1	179.5	168.0	EXCALIBUR	-60	290	74.2	160
BH1239	643008.4	8135715.3	175.0	180.0	EXCALIBUR	-90	0	N/A	N/A
MBH-028	642902.9	8135745.2	178.2	86.0	EXCALIBUR	-90	0	29	76
MBH-029	642931.9	8135726.8	178.3	114.0	EXCALIBUR	-90	0	18	114
MBH-030	642936.7	8135743.7	178.6	98.0	EXCALIBUR	-90	0	29	98
MBH-030	642936.7	8135743.7	178.6	98.0	EXCALIBUR	-90	0	21	24
MBH-031	642913.3	8135760.9	178.4	117.0	EXCALIBUR	-90	0	29	71
MXC-001	642928.1	8135746.0	130.2	42.0	EXCALIBUR	-60	91	0	12
MXC-002	642911.5	8135741.6	129.7	48.0	EXCALIBUR	-61	249	0	30
MXC-003	642905.0	8135715.4	130.0	60.0	EXCALIBUR	-60	182	0	48
MXC-004	642928.4	8135690.3	132.7	33.0	EXCALIBUR	-70	9	24	33
MXC-005	642951.8	8135706.6	132.9	54.0	EXCALIBUR	-70	306	24	25
MXC-005	642951.8	8135706.6	132.9	54.0	EXCALIBUR	-70	306	49	54
MXC-007	642898.0	8135753.9	129.7	30.0	EXCALIBUR	-90	0	0	15
MXC-008	643022.2	8135637.6	178.2	253.3	EXCALIBUR	-55	310	155.7	217
MXC-009	643026.4	8135807.3	180.5	276.0	EXCALIBUR	-55	218	169.5	176.7
MXC-009	643026.4	8135807.3	180.5	276.0	EXCALIBUR	-55	218	193.8	242.6
MXC-010	643009.4	8135603.6	177.5	186.0	EXCALIBUR	-60	327	N/A	N/A
MXC-011	642874.7	8135603.3	174.8	290.0	EXCALIBUR	-57	35	185.46	209.9
MXC-011	642874.7	8135603.3	174.8	290.0	EXCALIBUR	-57	35	237.42	257.9
MXC-012	643036.5	8135627.6	178.4	279.0	EXCALIBUR	-60	315	233.6	250.8
BH0167	642276.4	8141509.3	175.0	64.5	GARETH	-90	0	12	64.5
BH0185	642267.7	8141457.6	176.7	17.0	GARETH	-90	0	8	17
BH0232	642269.6	8141429.5	177.0	20.0	GARETH	-90	0	N/A	N/A
BH0233	642248.2	8141509.9	176.7	19.0	GARETH	-90	0	N/A	N/A
BH0308	642296.4	8141484.3	175.0	13.0	GARETH	-90	0	9	13
BH0310	642288.1	8141456.6	176.6	17.0	GARETH	-90	0	N/A	N/A
BH0311	642247.4	8141484.3	175.0	14.0	GARETH	-90	0	5	14
BH0312	642246.6	8141458.6	177.0	26.0	GARETH	-90	0	N/A	N/A
BH0406	642273.0	8141507.7	176.3	60.0	GARETH	-90	0	12	42
BH0407	642269.5	8141481.8	176.7	84.0	GARETH	-90	0	12	84
BH0614	642274.0	8141526.7	176.3	35.0	GARETH	-60	180	21	35
BH0615	642305.9	8141482.4	176.3	10.0	GARETH	-60	270	8	10
BH0617	642271.3	8141434.4	176.9	10.0	GARETH	-60	0	7	10
BH0618	642230.2	8141484.3	177.0	49.0	GARETH	-60	90	22	49
BH0619	642270.8	8141427.5	177.0	31.0	GARETH	-60	0	16	31
BH0622	642273.8	8141484.2	176.5	24.0	GARETH	-90	0	12	24
BH1467	642245.1	8141499.7	175.0	50.0	GARETH	-90	0	N/A	N/A
BH1469	642253.3	8141468.6	175.0	31.0	GARETH	-90	0	N/A	N/A
BH1470	642267.6	8141473.2	175.0	42.0	GARETH	-90	0	12	42
MBH-018	642293.2	8141488.3	176.2	87.0	GARETH	-90	0	12	87
MBH-019	642253.6	8141488.8	176.7	96.0	GARETH	-90	0	12	96
MBH-040	642266.9	8141463.0	176.8	90.0	GARETH	-90	0	14	90
MGR-001	642189.0	8141495.6	177.6	135.0	GARETH	-60	101	133	135
MGR-002	642327.9	8141545.8	175.9	116.0	GARETH	-60	218	115	116
MGR-003	642332.6	8141413.9	176.7	136.0	GARETH	-60	315	134	136
MGR-004	642227.3	8141416.6	178.5	160.0	GARETH	-60	42	N/A	N/A
BH0166	643184.3	8139209.4	189.8	29.0	GAWAIN	-90	0	26	29
BH0196	643183.9	8139210.6	189.8	29.0	GAWAIN	-90	0	23	29

	EASTING	NORTHING	COLLAR	MAX DEPTH		DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE NAME	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITY	(degrees)	(degrees)	FROM (m)	TO (m)
BH0197	643151.5	8139221.4	190.4	22.0	GAWAIN	-90	0	N/A	N/A
BH0200	643186.6	8139239.6	189.8	19.0	GAWAIN	-90	0	N/A	N/A
BH0227	643148.1	8139206.3	190.4	28.0	GAWAIN	-90	0	22	28
BH0228	643158.7	8139175.8	190.4	25.0	GAWAIN	-90	0	N/A	N/A
BH0229	643194.2	8139182.3	189.7	26.0	GAWAIN	-90	0	N/A	N/A
BH0230	643228.1	8139199.3	189.1	25.0	GAWAIN	-90	0	N/A	N/A
BH0419	643187.7	8139198.5	189.7	110.0	GAWAIN	-90	0	26	110
BH0420	643170.1	8139204.4	190.1	84.0	GAWAIN	-90	0	26	84
BH0544	643177.1	8139198.7	189.9	32.1	GAWAIN	-90	0	26	32.1
BH0594	643183.9	8139200.3	189.7	60.0	GAWAIN	-90	0	25.7	60
BH0620	643185.1	8139233.0	189.8	19.0	GAWAIN	-60	180	N/A	N/A
BH0621	643214.3	8139216.7	189.4	28.0	GAWAIN	-60	220	24.5	28
BH0625	643183.8	8139167.3	190.0	19.0	GAWAIN	-60	0	N/A	N/A
BH0626	643138.1	8139198.7	190.6	24.0	GAWAIN	-60	90	N/A	N/A
BH0627	643186.3	8139238.0	189.9	30.0	GAWAIN	-60	180	N/A	N/A
MBH-020	643208.6	8139198.2	189.7	114.0	GAWAIN	-90	0	24	30
MBH-041	643199.5	8139187.5	189.7	70.0	GAWAIN	-90	0	28	70
MGW-001	643258.3	8139163.4	188.9	166.0	GAWAIN	-60	294	N/A	N/A
MGW-002	643194.3	8139124.1	189.7	97.0	GAWAIN	-60	350	96	97
MGW-003	643106.9	8139230.6	191.2	102.0	GAWAIN	-60	114	93	102
MGW-004	643199.0	8139277.6	190.0	120.0	GAWAIN	-60	188	114	120
MGW-005	643115.5	8139160.6	191.3	88.0	GAWAIN	-60	50	82	88
NMGW-003	643178.6	8139198.1	134.0	535.9	GAWAIN	-88	314	0	504.5
NMGW-004	643177.4	8139195.3	134.0	126.5	GAWAIN	-80	90	0	75.3
NMGW-004	643177.4	8139195.3	134.0	126.5	GAWAIN	-80	90	75.3	95
NMGW-005	643177.4	8139195.3	134.0	100.7	GAWAIN	-58	90	0	43.5
NMGW-006	643177.4	8139195.3	134.0	173.0	GAWAIN	-85	90	0	81.04
NMGW-006	643177.4	8139195.3	134.0	173.0	GAWAIN	-85	90	81.04	123.55
NMGW-008	643177.3	8139197.8	133.9	341.5	GAWAIN	-86	5	0	305.65
NMGW-009	643166.2	8139195.2	134.8	341.5	GAWAIN	-84	65	0	311.6
NMGW-010	643166.2	8139195.2	134.8	341.5	GAWAIN	-84	38	0	317.8
NMGW-011	643180.0	8139193.9	133.9	362.2	GAWAIN	-84	17	0	309.2
SMGW-001	643137.4	8139101.3	190.0	403.0	GAWAIN	-67	13	290.5	387.5
SMGW-002	643285.4	8139217.3	185.0	279.4	GAWAIN	-60	261	160.8	258.8
SMGW-003	643200.4	8139317.3	188.0	377.7	GAWAIN	-60	182	193.2	355.96
10MKER-001		8141508.3	182.7	300.0	KAYE	-91	0	N/A	N/A
BH0189	641763.4	8141616.3	175.0	30.0	KAYE	-90	0	14	30
BH0201	641749.5	8141617.4	182.6	17.0	KAYE	-90	0	12	17
	641806.4	8141555.3	175.0	25.0	KAYE	-90	0	19	25
BH0205		8141565.3	175.0	28.0	KAYE	-90	0	18	28
BH0206		8141621.9	181.5	22.0	KAYE	-90	0	17	22
		8141668.7	181.5	25.0	KAYE	-90	0	N/A	N/A
BH0208		8141670.3	182.8	21.0	KAYE	-90	0	15	21
BH0401	641898.5	8141589.7	180.7	134.6	KAYE	-60	280	107.45	134.6
		8141589.7	180.7	134.6	KAYE	-60	280	94	107.45
		8141591.4	182.2	83.5	KAYE	-90	0	17	83.5
BH0405	641798.4	8141643.8	182.1	90.0	KAYE	-90	0	16	90
BH0427		8141608.7	182.2	143.0	KAYE	-60	180	18.5	19
	641798.9	8141608.7	182.2	143.0	KAYE	-60	180	19	49.7
D11074/	641798.9	8141608.7	182.2	143.0	KAYE	-60	180	49.7	52.4

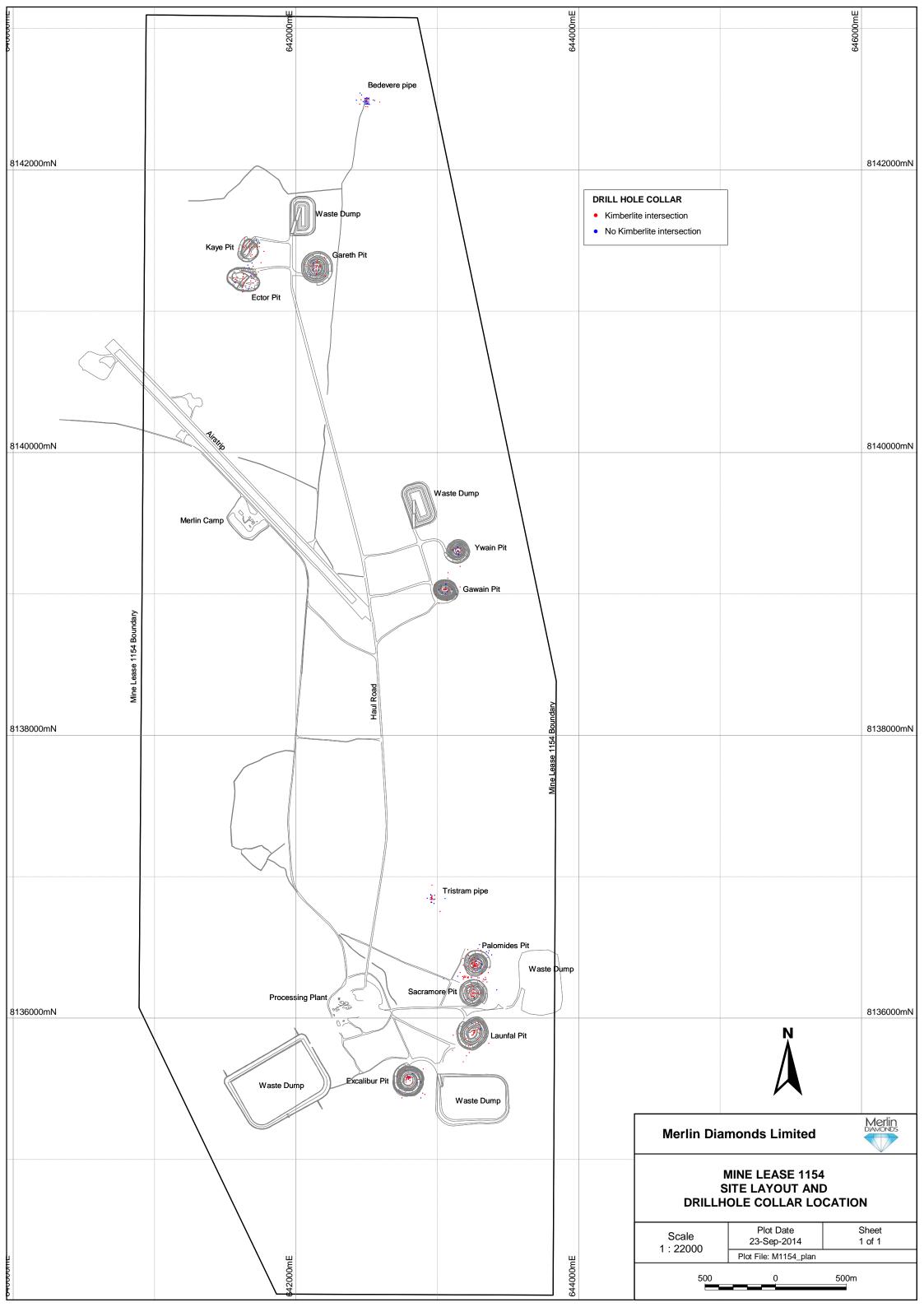
	EASTING	NORTHING	COLLAR	MAX DEPTH		DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE NAME	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITY	(degrees)	(degrees)	FROM (m)	TO (m)
BH0427	641798.9	8141608.7	182.2	143.0	KAYE	-60	180	52.4	128.5
BH0497	641852.8	8141619.9	181.4	20.0	KAYE	-90	0	18	20
BH0539	641868.5	8141648.7	181.2	46.0	KAYE	-58	270	N/A	N/A
MBH-012	641797.7	8141660.6	182.1	107.0	KAYE	-90	0	18	107
MBH-013	641753.5	8141622.2	182.7	40.0	KAYE	-90	0	15	29
MBH-014	641773.1	8141621.8	182.6	114.0	KAYE	-90	0	15	114
MBH-015	641811.8	8141619.2	182.2	120.0	KAYE	-90	0	19	120
MBH-016	641835.5	8141620.7	181.8	96.0	KAYE	-90	0	18	96
MBH-017	641793.4	8141620.0	182.1	116.0	KAYE	-90	0	16	116
MCT-003	641772.1	8141630.0	160.5	177.3	KAYE	-52	150	0	164.7
MEC-007	641793.8	8141474.7	182.5	168.0	KAYE	-70	0	N/A	N/A
MEC-010	641822.7	8141482.8	182.3	178.0	KAYE	-75	350	166	178
MKY-001	641839.3	8141555.4	181.4	30.0	KAYE	-60	310	26	30
MKY-002	641867.5	8141623.3	181.1	36.0	KAYE	-60	250	33	36
MKY-003	641762.8	8141683.4	182.1	61.0	KAYE	-60	156	57	58
MKY-003	641762.8	8141683.4	182.1	61.0	KAYE	-60	156	59.5	61
MKY-004	641719.5	8141607.8	183.1	71.0	KAYE	-60	80	69.5	71
10MLFD-001	643392.5	8136133.6	135.9	535.9	LAUNFAL	-75	190	290.89	387.49
10MLFD-001	643392.5	8136133.6	135.9	535.9	LAUNFAL	-75	190	471.25	498.27
10MLFD-001	643392.5	8136133.6	135.9	535.9	LAUNFAL	-75	190	531.43	532.89
10MLFD-001	643392.5	8136133.6	135.9	535.9	LAUNFAL	-75	190	439.41	462.2
10MLFR-001	643346.7	8135970.2	162.4	296.0	LAUNFAL	-90	270	127	262
10MLFR-001	643346.7	8135970.2	162.4	296.0	LAUNFAL	-90	270	288	290
10MLFR-002	643361.5	8135971.9	161.3	298.0	LAUNFAL	-80	10	101	290
BH0210	643385.6	8136075.9	184.9	25.0	LAUNFAL	-90	0	7	25
BH0413	643380.4	8136063.9	184.6	106.0	LAUNFAL	-90	0	8	106
BH0425	643391.7	8136073.6	184.8	80.5	LAUNFAL	-90	0	72	75
BH0425	643391.7	8136073.6	184.8	80.5	LAUNFAL	-90	0	53	65
BH0425	643391.7	8136073.6	184.8	80.5	LAUNFAL	-90	0	8	35
BH0545	643385.2	8136068.4	184.8	63.4	LAUNFAL	-90	0	8	63.4
BH0550	643386.7	8136078.3	184.9	34.0	LAUNFAL	-60	29	9	19
BH0557	643370.7	8136046.7	184.5	30.0	LAUNFAL	-60	210	15	27
BH0643	643416.1	8136135.2	185.4	91.8	LAUNFAL	-60	210	53.6	87
MBH-042	643379.6	8136052.7	184.7	66.0	LAUNFAL	-90	0	9	66
MBH-043	643389.6	8136064.9	184.9	72.0	LAUNFAL	-90	0	9	72
MLF-001	643422.0	8136125.1	145.5	84.0	LAUNFAL	-60	228	37.5	49.5
MLF-001	643422.0	8136125.1	145.5	84.0	LAUNFAL	-60	228	58	59
MLF-002	643413.1	8136091.2	145.0	51.0	LAUNFAL	-60	311	0	36.5
MLF-003	643433.0	8136095.7	145.0	90.0	LAUNFAL	-60	326	N/A	N/A
MLF-004	643383.7	8136081.0	145.6	84.0	LAUNFAL	-60	41	11.5	44
MLF-004	643383.7	8136081.0	145.6	84.0	LAUNFAL	-60	41	61.5	76
MLF-007	643385.9	8136060.1	140.0	102.0	LAUNFAL	-58	26	47	51
MLF-007	643385.9	8136060.1	140.0	102.0	LAUNFAL	-58	26	66	75
MLF-007	643385.9	8136060.1	140.0	102.0	LAUNFAL	-58	26	0	22
MLF-007	643385.9	8136060.1	140.0	102.0	LAUNFAL	-58	26	95	96
MLF-008	643434.0	8136083.7	140.3	78.0	LAUNFAL	-58	309	52	69
MLF-009	643369.7	8136074.6	135.0	150.0	LAUNFAL	-65	65	64.5	76
MLF-010	643421.2	8136058.5	135.2	150.0	LAUNFAL	-65	295	76.5	77
MLF-011	643425.9	8136090.0	134.9	87.5	LAUNFAL	-68	290	52.3	69.6
MLF-011	643425.9	8136090.0	134.9	87.5	LAUNFAL	-68	290	72.2	73.1

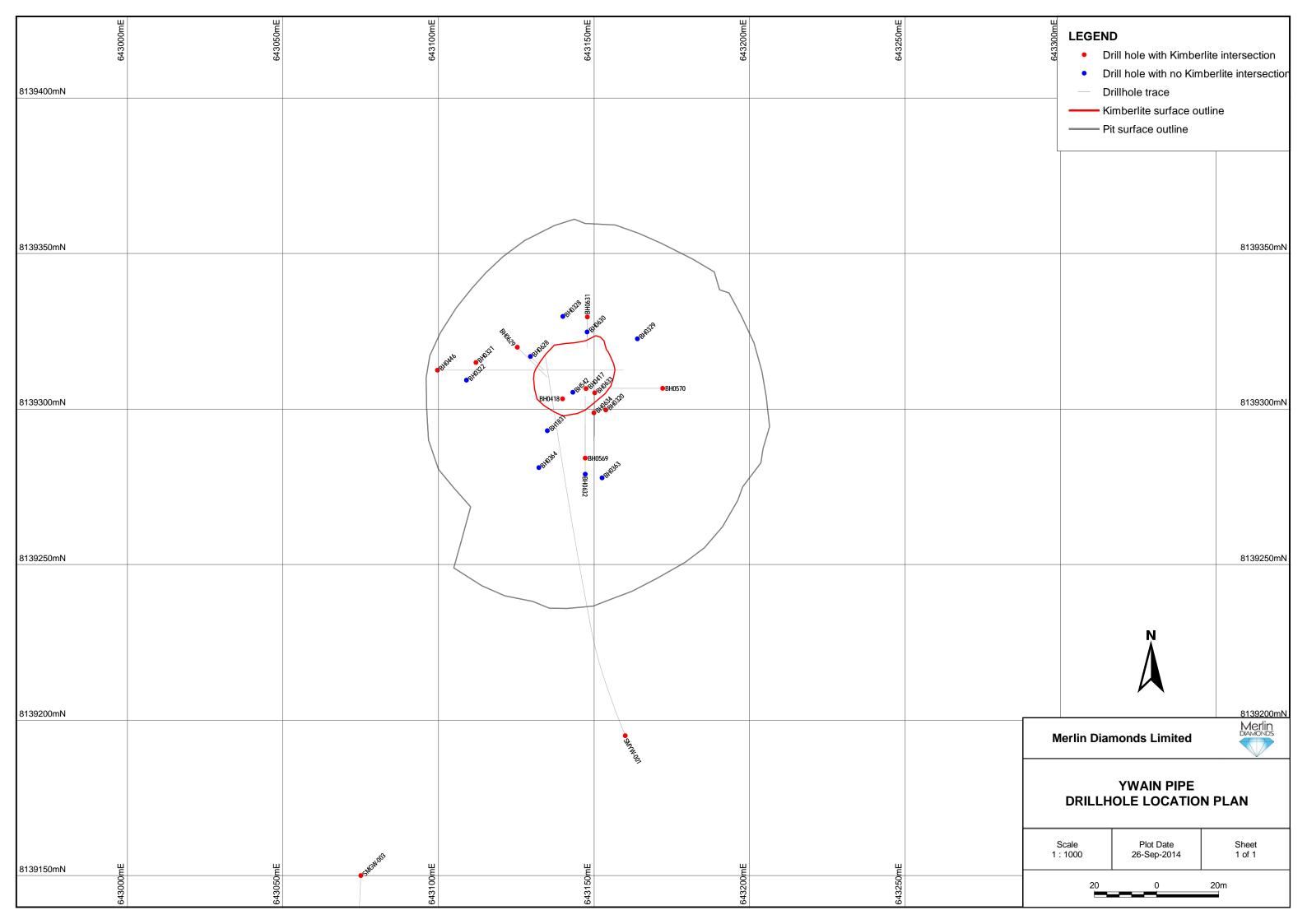
HOLE NAME	EASTING	NORTHING	COLLAR	MAX DEPTH	LOCALITY	DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE NAIVIE	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITI	(degrees)	(degrees)	FROM (m)	TO (m)
MLN-114	643433.8	8136086.2	161.0	96.0	LAUNFAL	-60	256	N/A	N/A
MLN-115	643344.6	8136097.5	163.9	78.0	LAUNFAL	-60	141	70	78
MLN-116	643411.2	8136016.4	161.7	126.0	LAUNFAL	-60	330	90	93
MLN-117	643369.8	8136130.2	165.0	96.0	LAUNFAL	-60	143	N/A	N/A
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	155.77	163.95
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	140.8	155.77
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	127	140.8
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	174.2	181.8
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	182.52	184.37
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	184.37	184.9
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	163.95	174.2
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	181.8	182.52
MLN-118	643351.8	8135924.2	184.3	237.2	LAUNFAL	-57	4	184.9	194.46
MLN-119	643332.8	8136026.2	164.2	138.0	LAUNFAL	-60	57	42	118
MLN-120	643319.5	8136017.3	163.8	75.0	LAUNFAL	-60	60	67	75
MLN-121	643237.8	8136047.4	182.7	296.0	LAUNFAL	-55	95	160.7	265.07
MLN-122	643330.6	8135901.7	184.3	294.0	LAUNFAL	-60	12	150.5	262.5
MLN-123	643490.1	8135988.9	186.6	324.0	LAUNFAL	-55	277	206	297.23
MLN-124	643308.5	8135857.8	183.6	228.2	LAUNFAL	-60	10	199.7	228.2
MLN-125	643231.6	8135941.1	183.5	270.4	LAUNFAL	-65	56	228.2	270.4
10MPSD-001	643386.0	8136314.1	117.3	503.0	PALSAC	-69	16	272.2	445.52
10MPSD-002	643385.1	8136314.4	117.5	364.8	PALSAC	-75	5	323.56	364.8
10MPSD-004	643339.5	8136534.2	157.3	773.3	PALSAC	-74	148	66.2	773.3
10MPSD-005	643387.9	8136593.3	132.5	191.6	PALSAC	-90	0	82	150.1
10MPSD-006	643372.7	8136498.3	152.1	270.0	PALSAC	-80	95	57	252.3
10MPSD-007	643371.7	8136584.1	131.0	502.0	PALSAC	-65	170	31.53	440.62
10MPSR-002	643368.0	8136572.7	125.4	163.0	PALSAC	-73	84	27	130
10MPSR-003	643387.9	8136593.3	132.5	82.0	PALSAC	-90	0	81	82
10MPSR-004	643366.9	8136571.7	125.2	201.0	PALSAC	-76	137	26	201
BH0109	643168.4	8136446.3	184.6	239.4	PALSAC	-50	105	N/A	N/A
BH0164	643397.4	8136570.3	175.0	34.0	PALSAC	-90	0	N/A	N/A
BH0165	643373.4	8136345.3	175.0	23.0	PALSAC	-90	0	8	23
BH0170	643421.4	8136561.3	175.0	26.0	PALSAC	-90	0	15	26
BH0171	643388.4	8136545.3	175.0	26.0	PALSAC	-90	0	15	26
BH0172	643375.4	8136579.3	175.0	22.0	PALSAC	-90	0	8	22
BH0173	643412.7	8136584.3	187.1	28.0	PALSAC	-90	0	N/A	N/A
BH0174	643351.4	8136588.3	175.0	20.0	PALSAC	-90	0	N/A	N/A
BH0175	643442.1	8136544.8	187.2	20.0	PALSAC	-90	0	N/A	N/A
BH0176	643430.1	8136522.0	186.7	25.0	PALSAC	-90	0	N/A	N/A
BH0177	643408.7	8136504.7	186.5	20.0	PALSAC	-90	0	N/A	N/A
BH0178	643385.5	8136513.8	186.3	20.0	PALSAC	-90	0	N/A	N/A
BH0182	643366.4	8136453.3	175.0	44.0	PALSAC	-90	0	N/A	N/A
BH0183	643421.4	8136429.3	175.0	65.0	PALSAC	-90	0	N/A	N/A
BH0214	643365.4	8136321.3	175.0	24.0	PALSAC	-90	0	8	24
BH0410		8136553.7	186.5	112.0	PALSAC	-90	0	8	112
BH0411	643407.9	8136549.0	186.6	156.0	PALSAC	-90	0	8	156
BH0412	643375.1	8136324.2	185.3	74.5	PALSAC	-90	0	8.5	74.5
BH0423	643388.7	8136344.6	185.4	102.0	PALSAC	-90	0	8	85
BH0541	643401.0	8136553.5	186.7	61.9	PALSAC	-90	0	9.22	12.24
BH0541	643401.0	8136553.5	186.7	61.9	PALSAC	-90	0	46.9	61.9

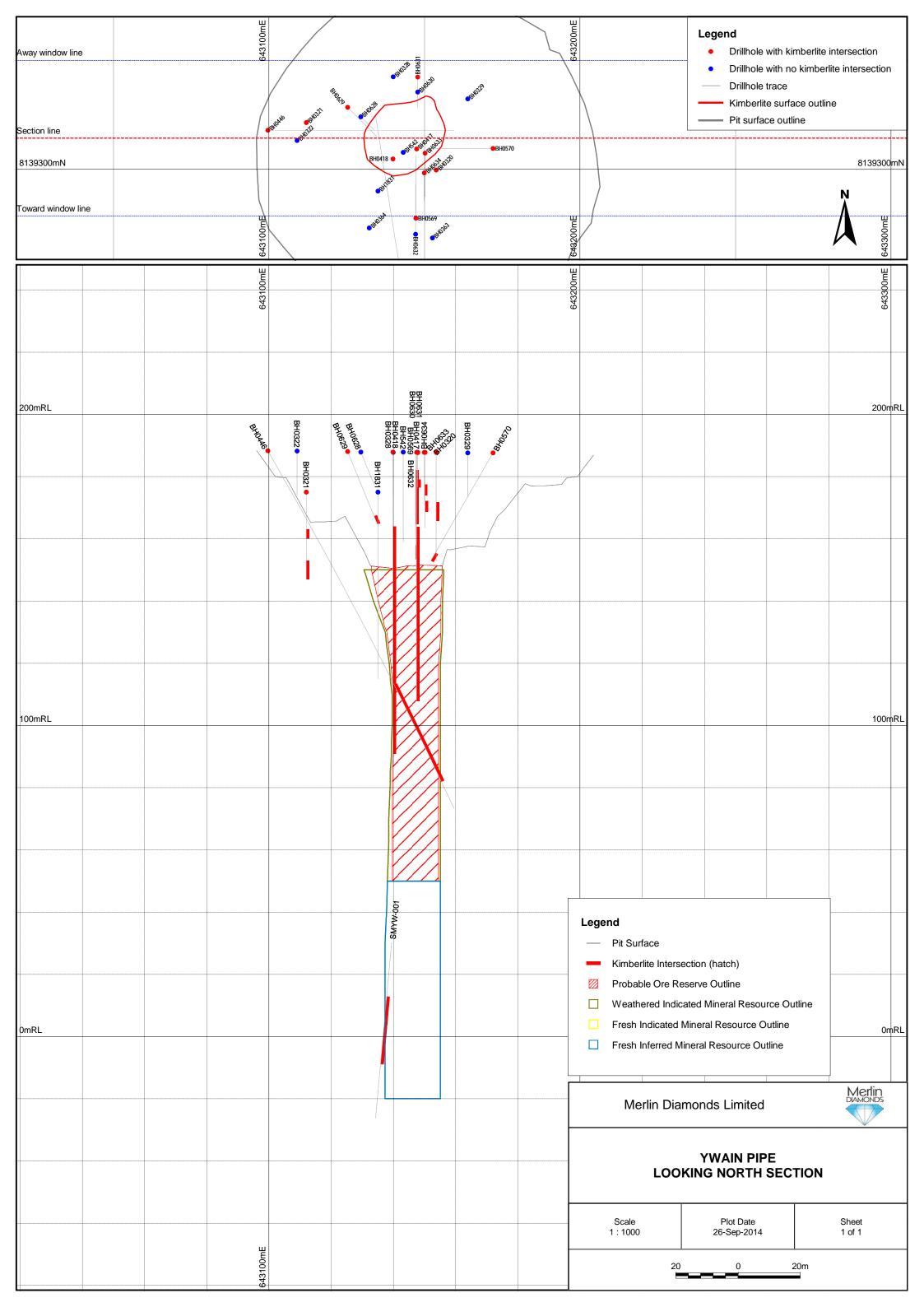
	EASTING	NORTHING	COLLAR	MAX DEPTH		DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE NAME	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITY	(degrees)	(degrees)	FROM (m)	TO (m)
BH0541	643401.0	8136553.5	186.7	61.9	PALSAC	-90	0	46.55	46.9
BH0541	643401.0	8136553.5	186.7	61.9	PALSAC	-90	0	21.85	45.97
BH0541	643401.0	8136553.5	186.7	61.9	PALSAC	-90	0	12.24	21.6
BH0543	643382.6	8136352.7	185.3	61.0	PALSAC	-90	0	7.37	61
BH0562	643437.0	8136550.1	187.1	22.0	PALSAC	-60	90	N/A	N/A
BH0564	643362.8	8136551.7	186.3	28.0	PALSAC	-60	270	8	11
BH0565	643370.7	8136551.3	186.4	27.0	PALSAC	-60	270	12	25
BH0566	643401.8	8136574.8	186.8	23.0	PALSAC	-60	0	8	19
BH0568	643394.6	8136501.2	186.2	22.0	PALSAC	-60	0	16	22
BH0587	643345.6	8136343.7	184.9	21.0	PALSAC	-60	90	19	21
BH0589	643349.6	8136389.7	185.1	42.0	PALSAC	-60	140	35	42
BH0590	643385.6	8136304.7	185.4	33.0	PALSAC	-60	0	N/A	N/A
BH0591	643430.6	8136344.7	186.3	43.0	PALSAC	-60	270	39	43
BH0595	643380.6	8136319.7	185.3	21.0	PALSAC	-90	0	7	21
BH0598	643416.6	8136344.7	185.9	24.0	PALSAC	-90	0	4	24
BH0769	643325.4	8136296.3	175.0	25.0	PALSAC	-90	0	N/A	N/A
LDC-002	643370.4	8136557.3	135.5	158.0	PALSAC	-80	205	0	112
LDC-002	643370.4	8136557.3	135.5	158.0	PALSAC	-80	205	117.1	158
LDC-003	643395.2	8136534.2	135.7	175.3	PALSAC	-90	0	0	117.7
LDC-003	643395.2	8136534.2	135.7	175.3	PALSAC	-90	0	122.5	175.3
LDC-004	643408.8	8136529.7	135.7	139.6	PALSAC	-78	215	0	6
LDC-004	643408.8	8136529.7	135.7	139.6	PALSAC	-78	215	25	60.6
LDC-004	643408.8	8136529.7	135.7	139.6	PALSAC	-78	215	70	139.6
LDC-006	643325.8	8136464.4	185.3	211.3	PALSAC	-76	75	120	211.3
LDC-007	643337.5	8136453.3	185.1	195.0	PALSAC	-73	74	105.57	195
LDC-011	643411.2	8136452.2	186.0	212.2	PALSAC	-78	280	111	212.2
LDC-012	643345.1	8136457.4	185.5	209.6	PALSAC	-77	113	115.1	209.6
MBH-021	643398.1	8136528.0	186.6	120.0	PALSAC	-90	0	9.5	120
MBH-022	643367.9	8136553.3	186.5	84.0	PALSAC	-90	0	9	84
MBH-023	643428.8	8136552.7	187.0	108.0	PALSAC	-90	0	9	108
MBH-024	643380.6	8136369.7	185.3	72.0	PALSAC	-90	0	10	35
MBH-025	643367.4	8136344.8	185.2	114.0	PALSAC	-90	0	9	101
MBH-026	643410.6	8136344.7	185.7	72.0	PALSAC	-90	0	8.5	45.5
MBH-027	643385.6	8136364.7	185.4	102.0	PALSAC	-90	0	8	102
MPL-002	643390.6	8136546.2	167.6	83.0	PALSAC	-60	90	0	81
MPL-004	643384.7	8136530.2	168.0	30.0	PALSAC	-60	155	0	18
MPL-005	643380.4	8136539.3	167.7	36.0	PALSAC	-60	155	0	24
MPL-007	643387.4	8136541.5	164.5	114.0	PALSAC	-70	223	40	114
MPL-007		8136541.5	164.5	114.0	PALSAC	-70	223	0	27
MPL-008	643397.9	8136538.1	164.8	78.0	PALSAC	-60	147	0	31
MPL-009	643410.2	8136540.1	164.7	108.0	PALSAC	-70	46	0	92
MPL-011	643389.4	8136562.1	164.7	54.0	PALSAC	-60	316	0	30
MPL-012	643371.1	8136524.7	164.6	54.0	PALSAC	-90	0	49	54
MPL-013	643337.7	8136485.5	185.3	90.0	PALSAC	-60	45	83	90
MPL-014		8136484.3	186.5	114.0	PALSAC	-60	325	90	114
MPL-015	643345.7	8136613.1	186.6	105.0	PALSAC	-60	120	102	105
MPL-016	643316.7	8136463.3	185.2	132.0	PALSAC	-60	45	102	132
MPL-017	643365.2	8136459.0	185.6	254.7	PALSAC	-63	22	97.1	142.1
MPL-017	643365.2	8136459.0	185.6	254.7	PALSAC	-63	22	142.1	225.12
MPL-018	643308.4	8136542.1	185.9	290.7	PALSAC	-60	98	95.1	259.8

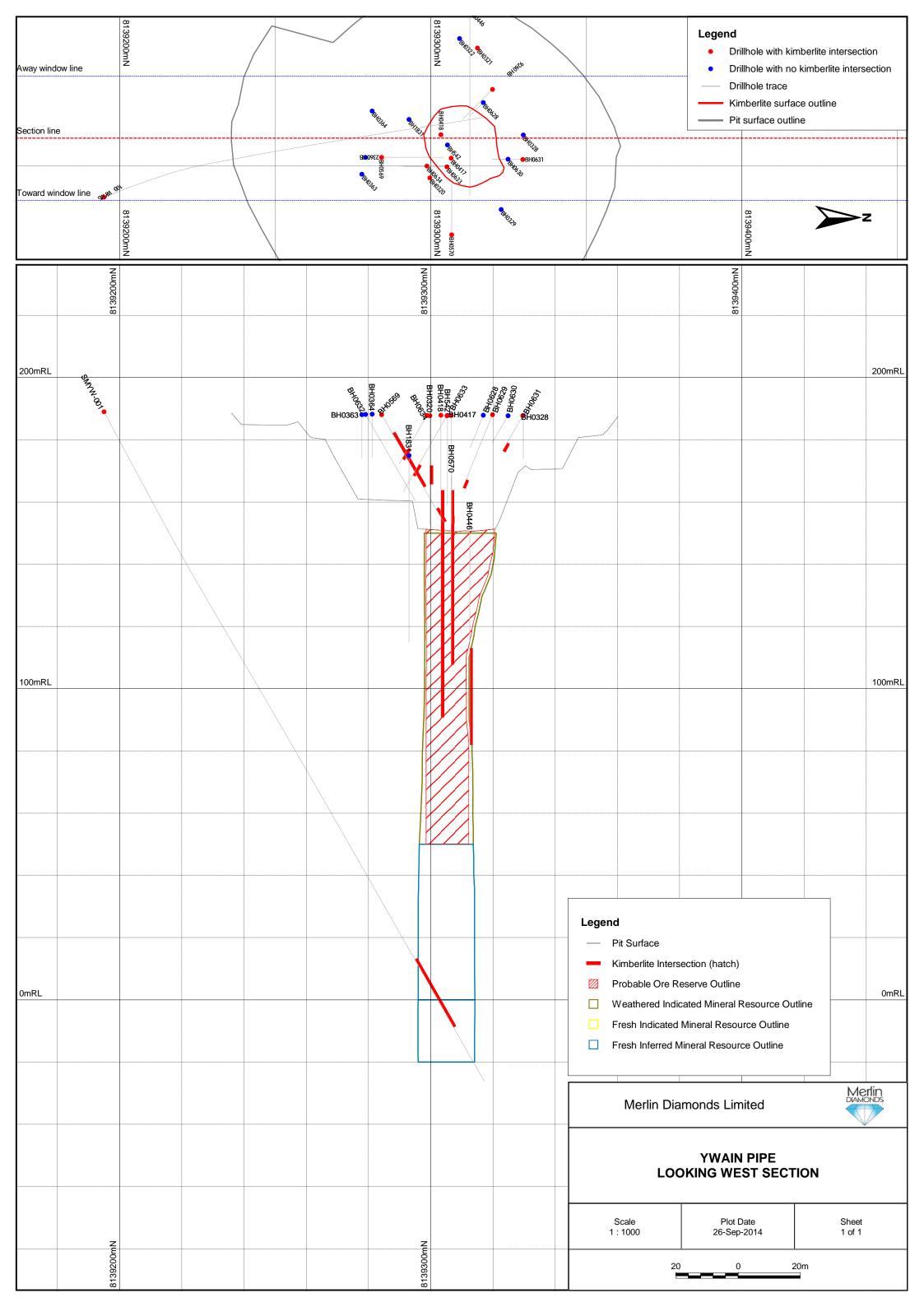
HOLE NAME	EASTING (GDA94)	NORTHING (GDA94)	COLLAR (mRL)	MAX DEPTH	LOCALITY	DIP (degrees)	AZIMUTH (degrees)	KIMBERLITE FROM (m)	KIMBERLITE
MDL 010		1			DALCAC	1	1		, ,
MPL-019	643433.1	8136645.5	187.4	401.6	PALSAC	-55	195	114	379.5
MPL-021	643494.4	8136529.0	186.5	326.2	PALSAC	-57	276	165	296.52
MPL-022	643464.3	8136456.4	186.7	278.8	PALSAC	-55	305	127.03	248.5
MPL-023	643307.3	8136590.2	185.9	441.8	PALSAC	-60	135	137.9	441.8
MPL-025	643413.5	8136659.2	187.0	160.0	PALSAC	-65	187	150	160
MPL-026	643472.9	8136637.4	187.5	202.0	PALSAC	-72	217	N/A	N/A
MPL-027	643423.3	8136687.9	187.6	208.0	PALSAC	-70	190	N/A	N/A
MPL-028	643485.5	8136627.1	187.1	228.0	PALSAC	-63	230	N/A	N/A
MPL-029	643340.5	8136652.6	186.8	186.0	PALSAC	-62	155	158	186
MPL-030	643448.7	8136428.1	186.3	217.0	PALSAC	-60	240	153	196
MPL-031	643321.7	8136455.9	185.0	222.0	PALSAC	-65	144	140.5	214
MSC-053	643381.3	8136339.2	165.2	60.0	PALSAC	-60	0	0	53
MSC-054	643398.4	8136342.5	165.2	75.0	PALSAC	-60	270	0	65
MSC-055	643370.4	8136347.3	164.9	60.0	PALSAC	-60	90	0	53
MSC-056	643362.1	8136358.2	164.7	66.0	PALSAC	-60	147	0	62
MSC-057	643377.1	8136340.8	164.9	45.0	PALSAC	-60	205	0	40
MSC-058	643335.0	8136376.4	165.0	54.0	PALSAC	-60	122	47	54
MSC-059	643370.9	8136330.7	165.1	78.0	PALSAC	-60	30	0	63
MSC-060	643422.5	8136336.1	165.2	48.0	PALSAC	-60	286	35	48
MSC-061	643260.6	8136342.5	184.2	225.0	PALSAC	-56	90	N/A	N/A
MSC-062	643342.7	8136307.5	155.1	128.4	PALSAC	-60	40	92.9	103.2
MSC-063	643309.5	8136442.3	184.8	177.0	PALSAC	-55	142	104	156.3
MSC-064	643258.7	8136343.4	184.4	270.2	PALSAC	-54	62	143.5	244
MSC-065	643379.2	8136526.3	165.0	219.0	PALSAC	-60	178	98.4	191.57
MSC-066	643476.4	8136423.6	187.0	279.0	PALSAC	-60	270	172.62	248.97
MSC-067	643305.4	8136462.3	185.0	310.0	PALSAC	-70	110	190.5	251.9
MSC-068	643370.4	8136397.3	150.0	83.0	PALSAC	-90	0	73	83
MSC-069	643381.0	8136389.7	149.9	94.0	PALSAC	-60	352	82	94
MSC-070	643286.1	8136490.6	185.4	157.0	PALSAC	-70	85	152	157
MSC-071	643486.4	8136490.6	187.1	193.0	PALSAC	-66	265	187	193
MSC-073	643419.7	8136452.3	185.9	120.0	PALSAC	-72	270	105	120
MSC-074	643312.7	8136456.1	185.1	180.0	PALSAC	-65	112	144	162
MSC-075	643337.9	8136457.4	185.2	133.0	PALSAC	-76	88	111	133
MSC-076	643312.7	8136452.4	185.0	181.0	PALSAC	-76	83	154	181
NMPS-001	643452.4	8136443.2	187.1	471.0	PALSAC	-76	310	212.2	443.7
NMPS-002	643460.2		186.5	770.9	PALSAC	-83	270	285.95	
NMPS-002		8136438.1					-		757.75 770.9
	643460.2	8136438.1	186.5	770.9	PALSAC	-83	270	769	
PAL WINZE	643397.7	8136550.6	186.7	52.2	PALSAC	-90 65	0	9	52.2
PGT-002	643491.3	8136645.0	187.0	180.5	PALSAC	-65	47	N/A	N/A
PGT-003	643468.3	8136441.6	186.6	175.0	PALSAC	-60	135	N/A	N/A
PGT-004	643269.1	8136464.2	184.9	177.5	PALSAC	-60	225	N/A	N/A
SMPL-023	643307.3	8136590.2	185.9	531.4	PALSAC	-60	135	137.9	494.8
SMPS-001	643545.4	8136367.3	185.0	393.0	PALSAC	-60	270	N/A	N/A
SMPS-002	643510.4	8136614.3	185.0	360.0	PALSAC	-65	265	N/A	N/A
SMPS-004	643343.4	8136452.3	185.0	183.0	PALSAC	-65	27	99.4	183
BH0252	643078.4	8137041.3	188.4	6.0	TRISTRAM	-90	0	N/A	N/A
BH0253	643079.4	8137037.3	188.3	25.0	TRISTRAM	-90	0	N/A	N/A
BH0254	643078.4	8137018.3	188.2	27.0	TRISTRAM	-90	0	13	27
BH0255	643100.1	8137006.2	187.5	30.0	TRISTRAM	-90	0	N/A	N/A
BH0256	643104.9	8137036.0	187.8	30.0	TRISTRAM	-90	0	N/A	N/A

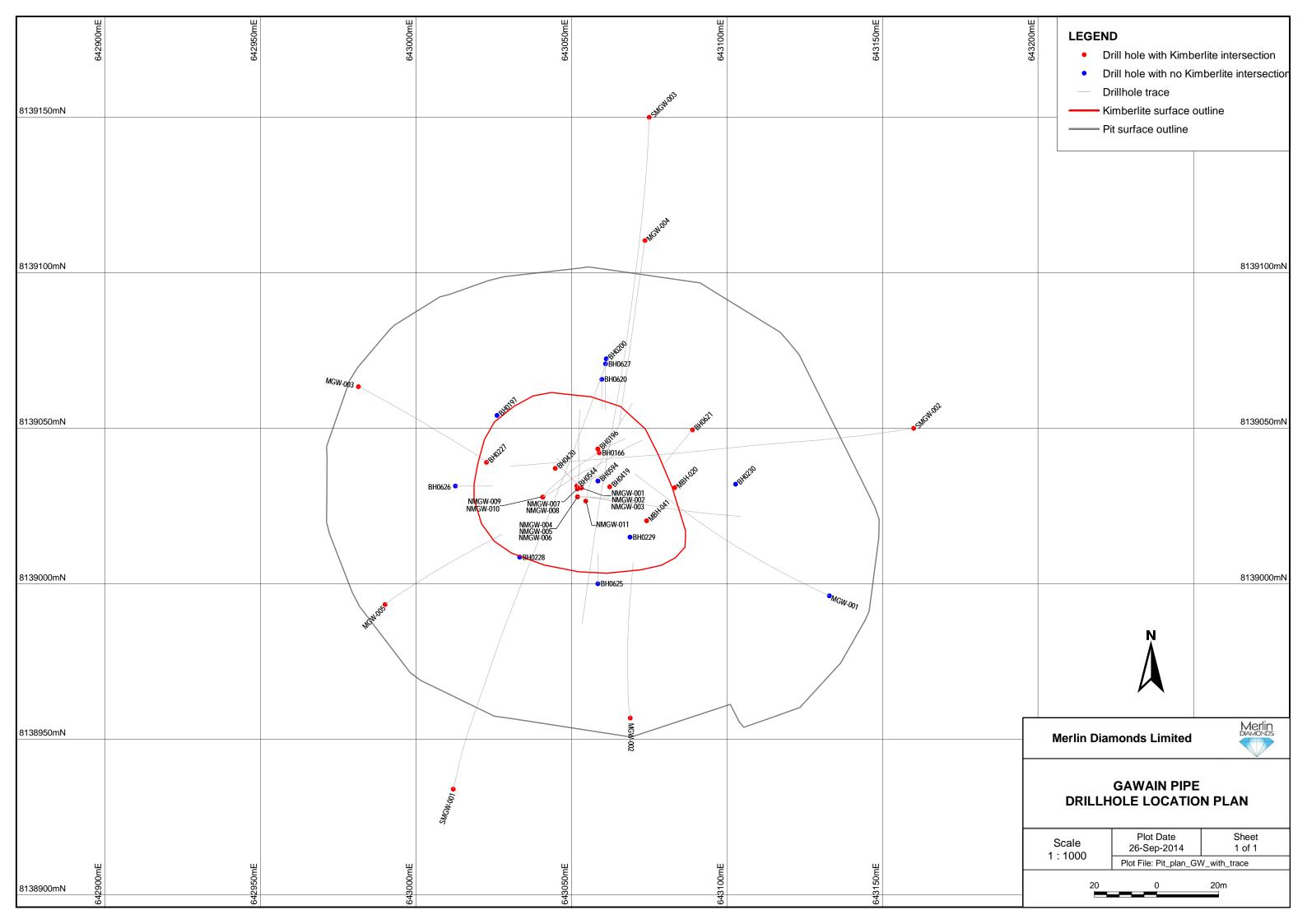
	EASTING	NORTHING	COLLAR	MAX DEPTH		DIP	AZIMUTH	KIMBERLITE	KIMBERLITE
HOLE NAME	(GDA94)	(GDA94)	(mRL)	(m)	LOCALITY	(degrees)	(degrees)	FROM (m)	TO (m)
BH0271	643079.0	8136986.6	187.4	25.0	TRISTRAM	-90	0	22	25
BH0290	643101.4	8136977.3	188.1	14.0	TRISTRAM	-90	0	N/A	N/A
BH0291	643054.0	8137014.6	187.9	14.0	TRISTRAM	-90	0	N/A	N/A
BH0421	643084.7	8137018.2	187.7	112.0	TRISTRAM	-90	0	35	112
BH0422	643086.1	8137006.6	187.7	84.0	TRISTRAM	-90	0	34	84
BH0481	643085.4	8137012.4	187.7	48.0	TRISTRAM	-90	0	31.9	48
BH0498	643106.6	8137009.6	187.7	17.0	TRISTRAM	-90	0	5	17
MBH-001	643085.9	8136985.7	187.5	96.0	TRISTRAM	-90	0	34	96
MBH-002	643087.4	8137033.5	187.8	101.0	TRISTRAM	-90	0	28	101
NMTR-001	643145.4	8136922.3	187.0	240.0	TRISTRAM	-65	318	216	226.5
NMTR-002	643087.4	8137107.3	187.0	186.8	TRISTRAM	-65	180	145.9	186.8
NMTR-003	643180.4	8137012.3	187.0	318.0	TRISTRAM	-65	268	N/A	N/A
NMTR-004	643085.4	8137022.3	187.0	38.5	TRISTRAM	-90	0	31.5	38.5
NMTR-005	643085.4	8137010.3	187.0	45.2	TRISTRAM	-90	0	31.5	45.2
NMTR-006	643085.4	8137005.3	187.0	40.0	TRISTRAM	-90	0	31.5	40
NMTR-007	643092.4	8137011.3	187.0	44.8	TRISTRAM	-90	0	32.6	33
NMTR-007	643092.4	8137011.3	187.0	44.8	TRISTRAM	-90	0	35.8	41.6
NMTR-008	643085.4	8136987.3	187.0	37.6	TRISTRAM	-90	0	N/A	N/A
NMTR-009	643075.4	8137007.3	187.0	30.5	TRISTRAM	-90	0	N/A	N/A
NMTR-010	643087.4	8137027.3	187.0	21.0	TRISTRAM	-90	0	N/A	N/A
NMTR-011	643086.4	8137017.3	187.0	48.8	TRISTRAM	-90	0	32.8	40
NMTR-011	643086.4	8137017.3	187.0	48.8	TRISTRAM	-90	0	45.3	47.9
BH0320	643279.1	8139467.0	187.8	35.0	YWAIN	-90	0	16	22
	643237.4	8139482.3	175.0	28.0	YWAIN	-90	0	12	15
BH0321	643237.4	8139482.3	175.0	28.0	YWAIN	-90	0	22	28
BH0322	643234.4	8139476.5	188.2	14.0	YWAIN	-90	0	N/A	N/A
	643265.3	8139497.0	187.8	14.0	YWAIN	-90	0	N/A	N/A
BH0329	643289.3	8139489.9	187.7	14.0 14.0	YWAIN	-90	0	N/A	N/A
BH0363	643277.9	8139445.2	188.1		YWAIN	-90	0	N/A	N/A
	643257.7 643272.8	8139448.4	188.3	14.0 80.0	YWAIN	-90 -90	0	N/A 24	N/A 80
BH0417 BH0418	643265.3	8139473.8 8139470.6	187.8 187.9	97.0	YWAIN	-90	0	24	97
BH0446	643225.0	8139470.0	188.3	129.7	YWAIN	-60	90	85.5	120.19
BH0569	643272.6	8139451.5	188.1	40.0	YWAIN	-60	0	35	40
BH0569	643272.6	8139451.5	188.1	40.0	YWAIN	-60	0	7	27
BH0570	643297.4	8139474.0	187.6	40.0	YWAIN	-60	270	37	40
BH0628	643254.9	8139484.2	187.9	12.0	YWAIN	-60	135	N/A	N/A
BH0629	643250.7	8139487.1	188.0	27.0	YWAIN	-60	135	24	27
BH0630	643273.2	8139492.1	187.8	10.0	YWAIN	-60	180	N/A	N/A
BH0631	643273.2	8139496.9	187.8	13.0	YWAIN	-60	180	10	13
BH0632	643272.5	8139446.4	188.1	32.0	YWAIN	-60	0	N/A	N/A
BH0633	643275.6	8139472.5	187.8	28.0	YWAIN	-60	180	18	22
BH0634	643275.3	8139466.1	187.8	18.0	YWAIN	-60	180	12	16
BH1831	643260.4	8139460.3	175.0	60.0	YWAIN	-90	0	N/A	N/A
SMYW-001	643285.4	8139362.3	189.0	249.0	YWAIN	-60	338	203.8	228.99

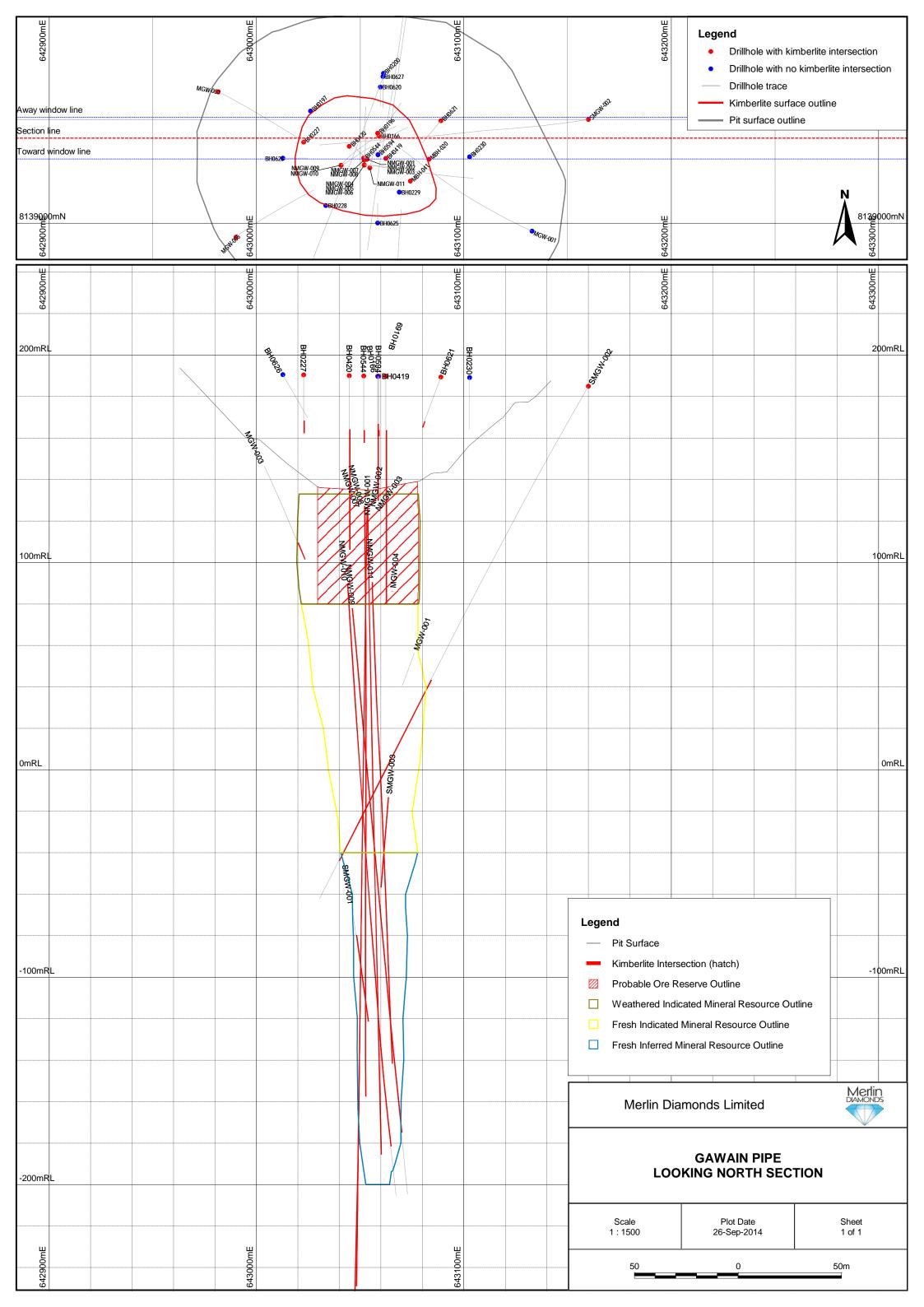


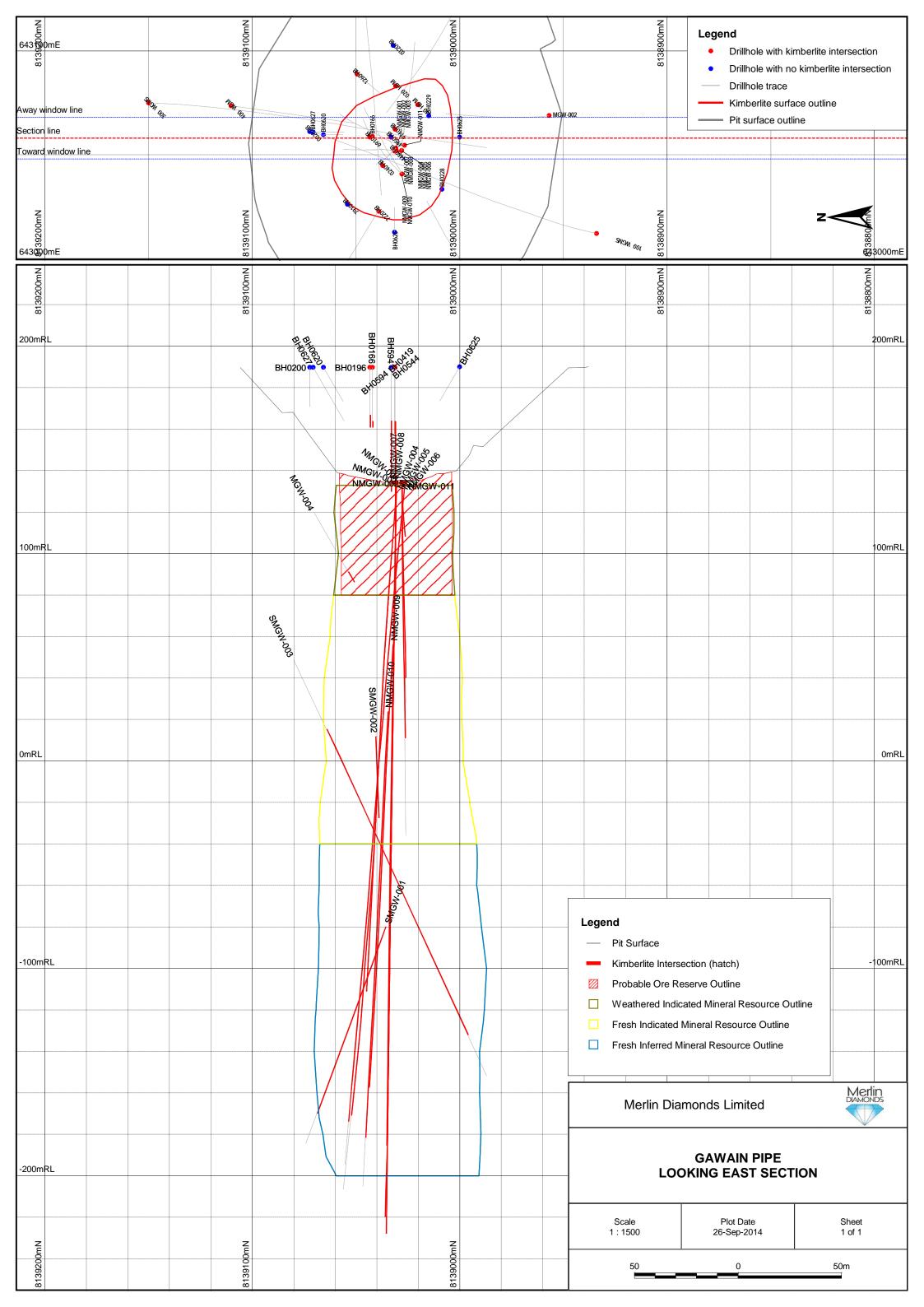


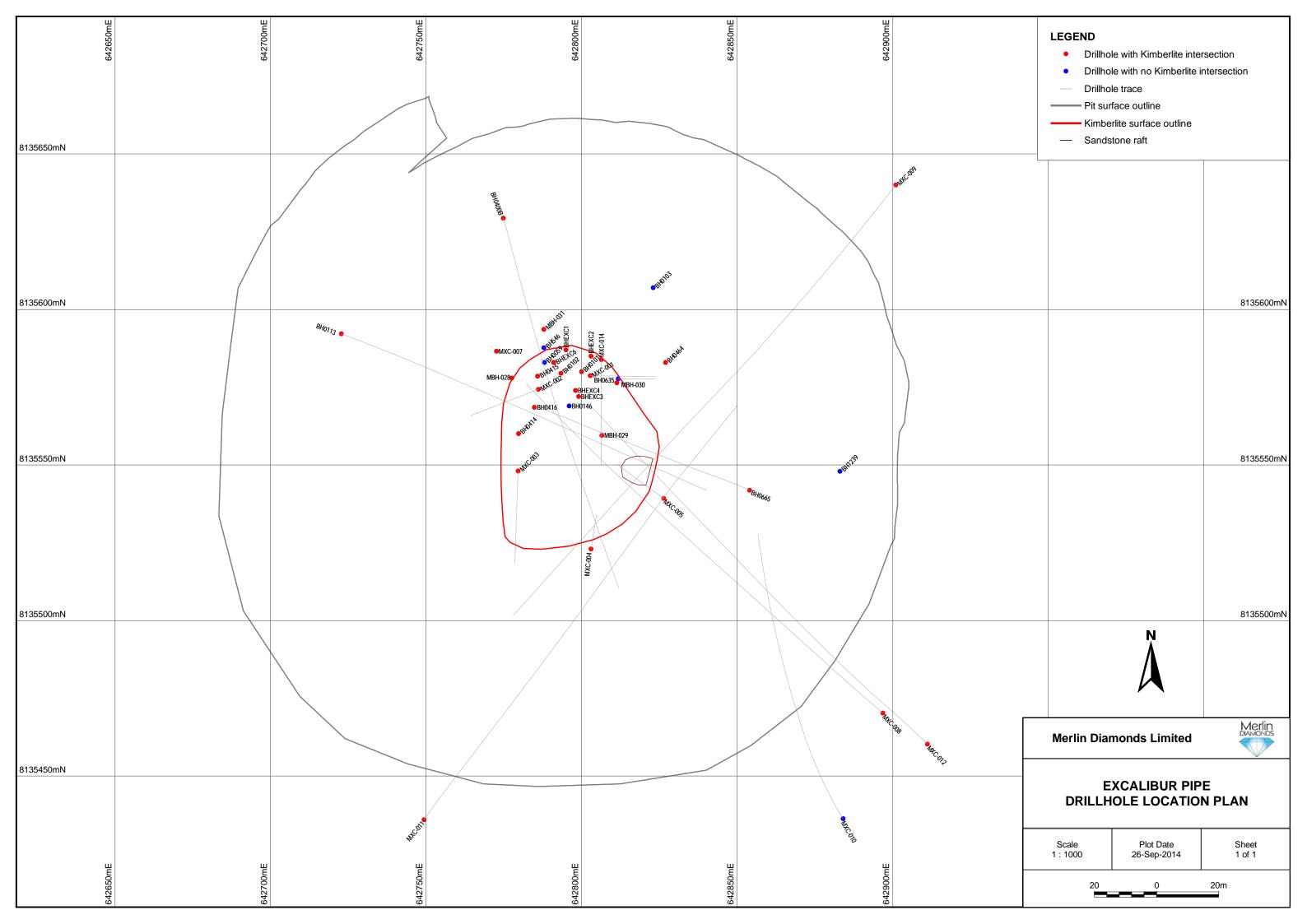


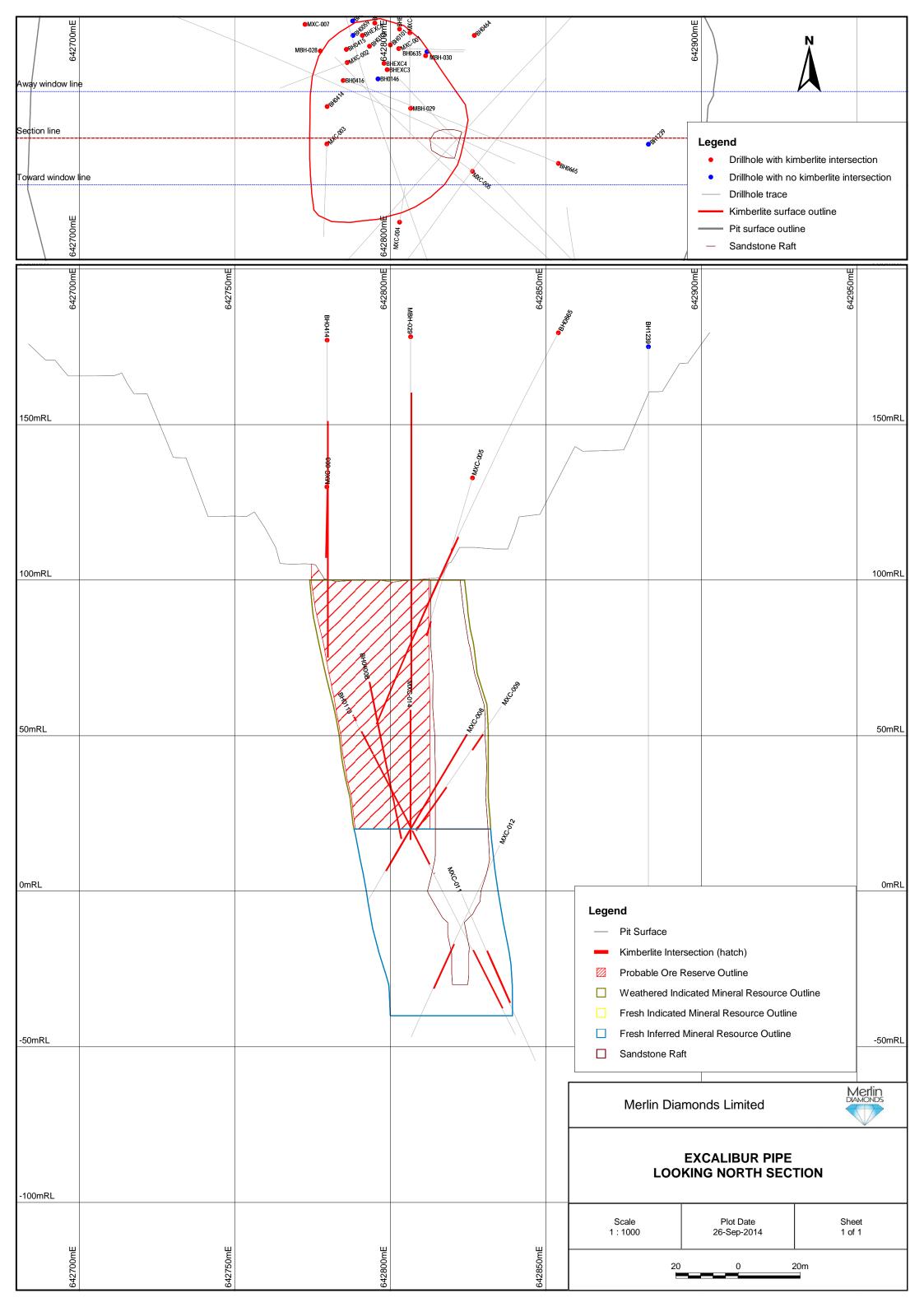


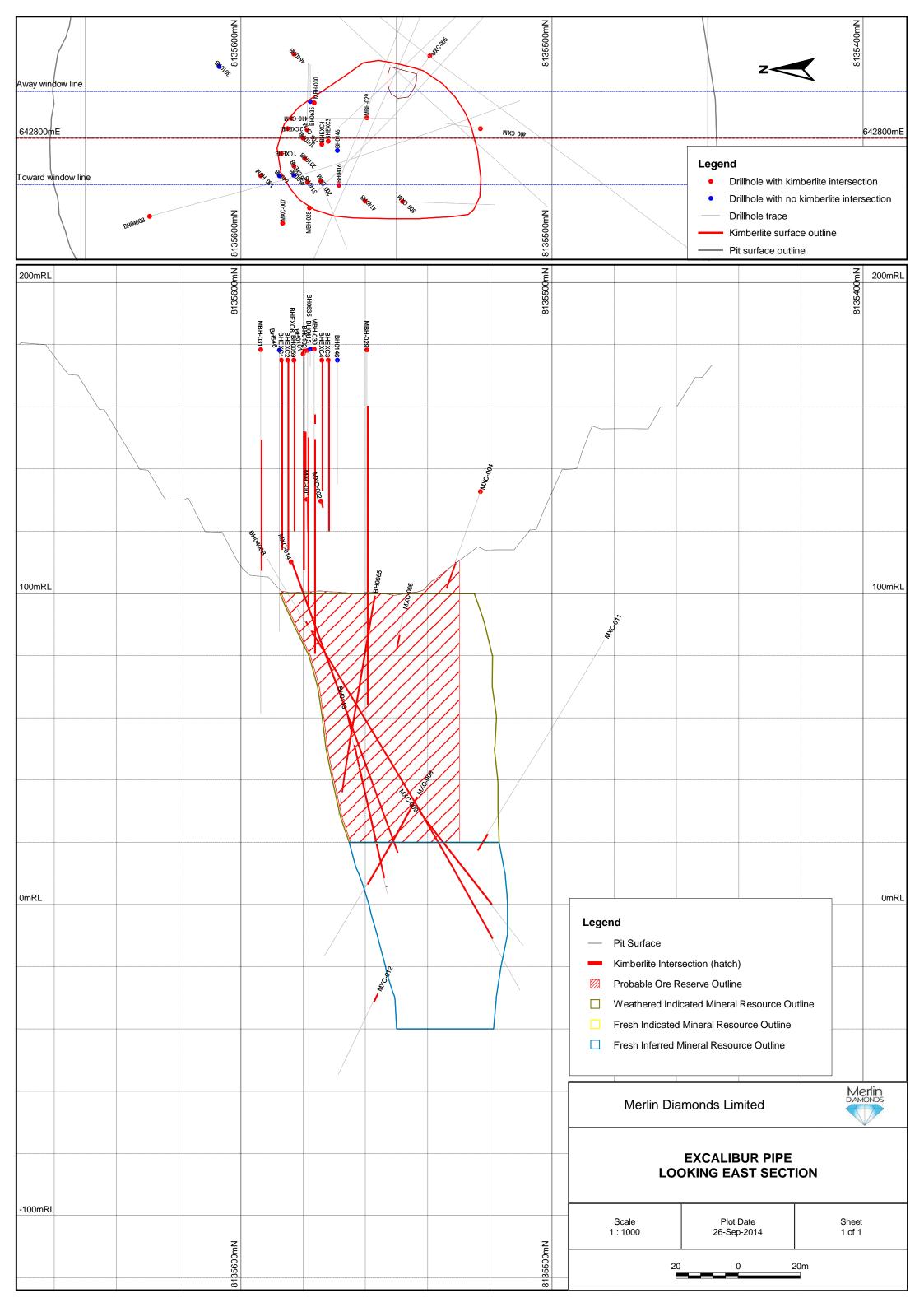


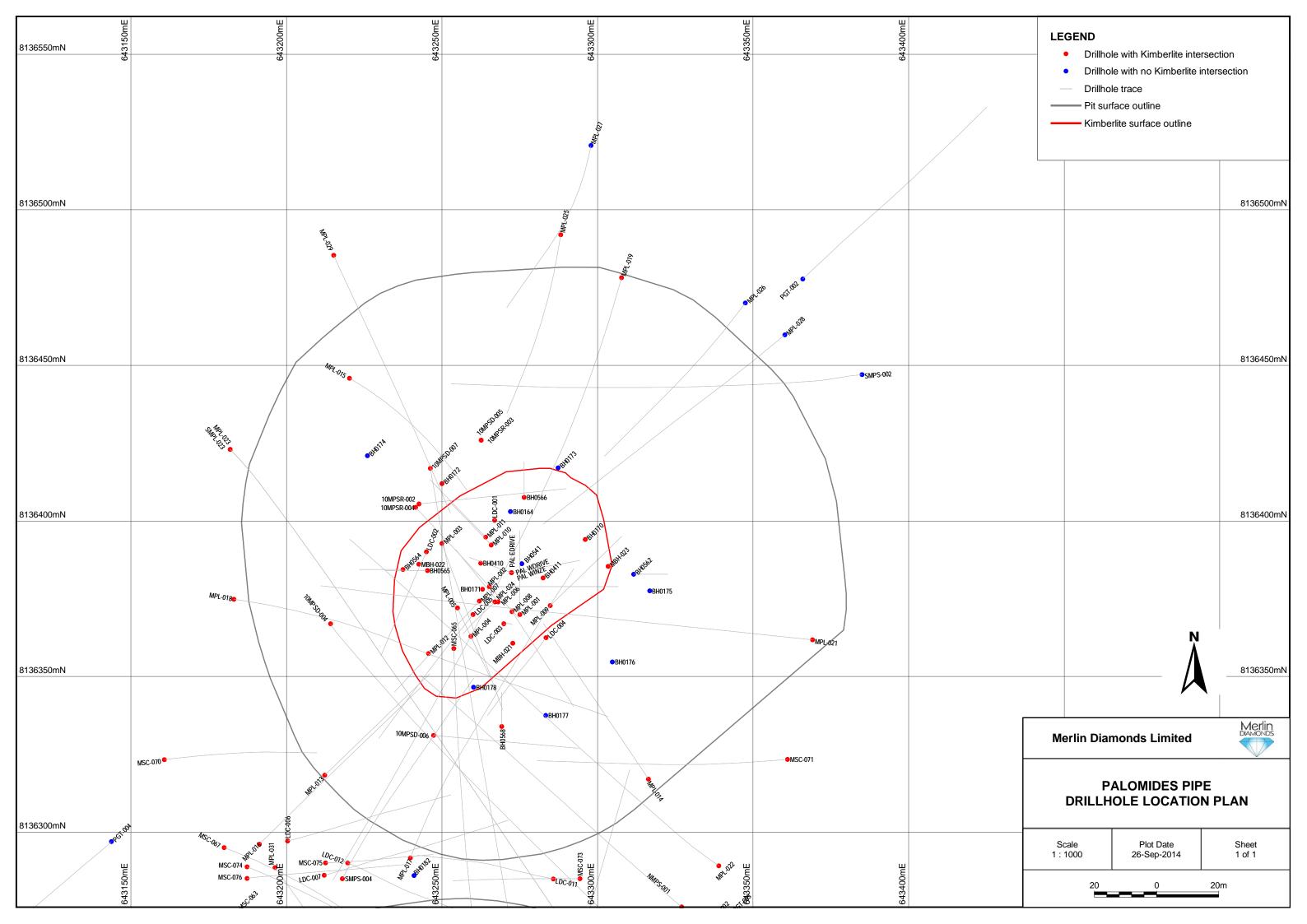


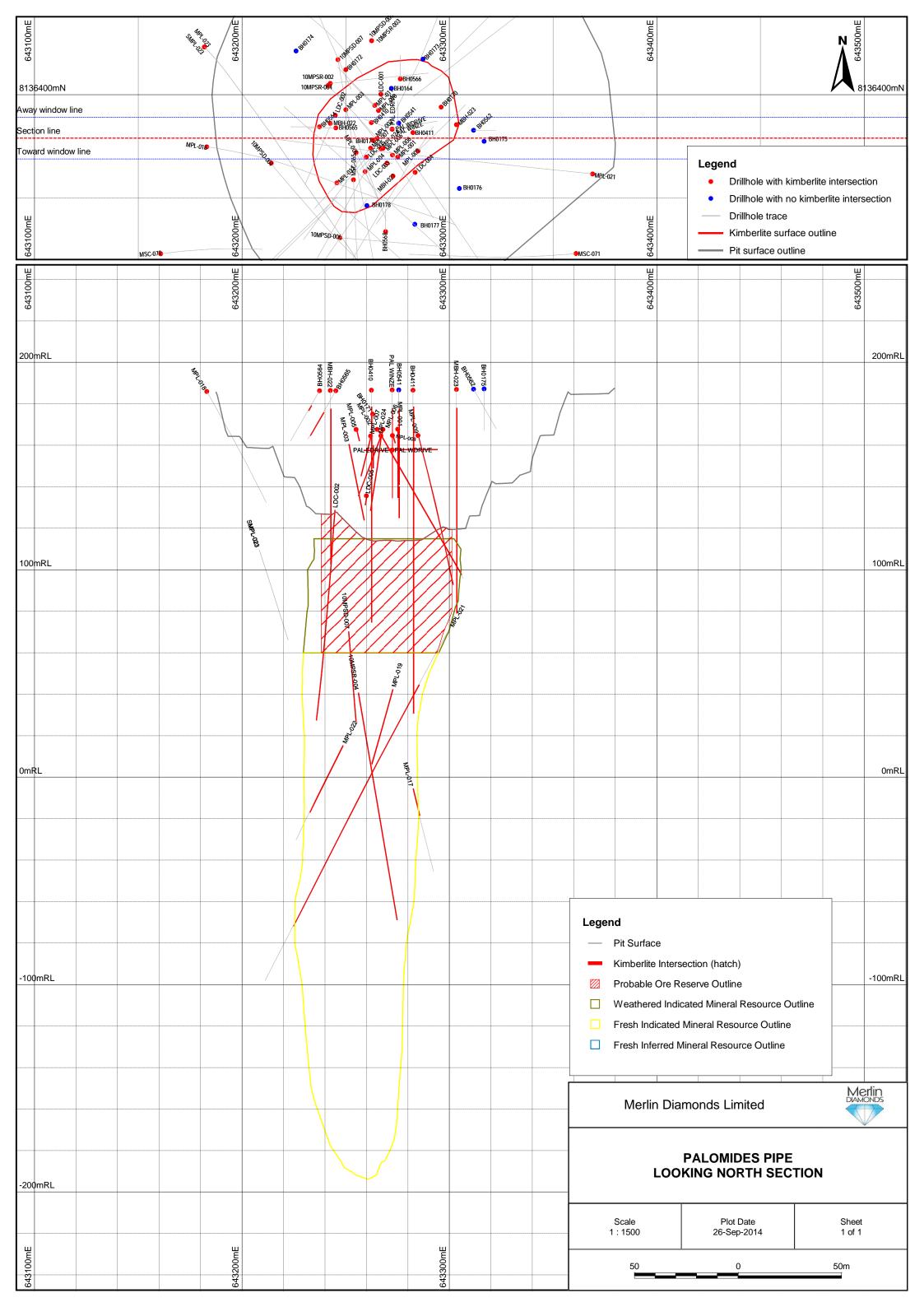


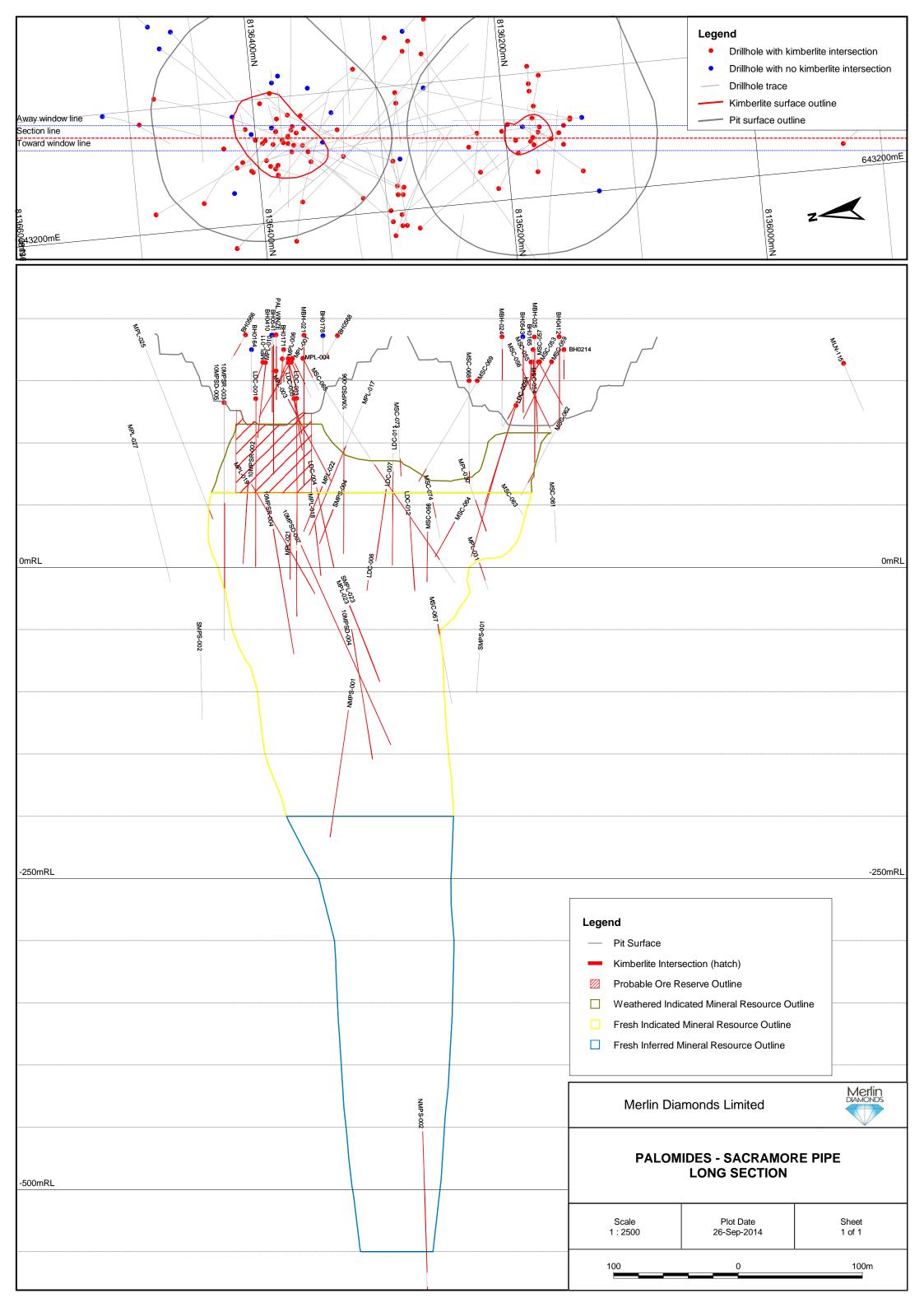


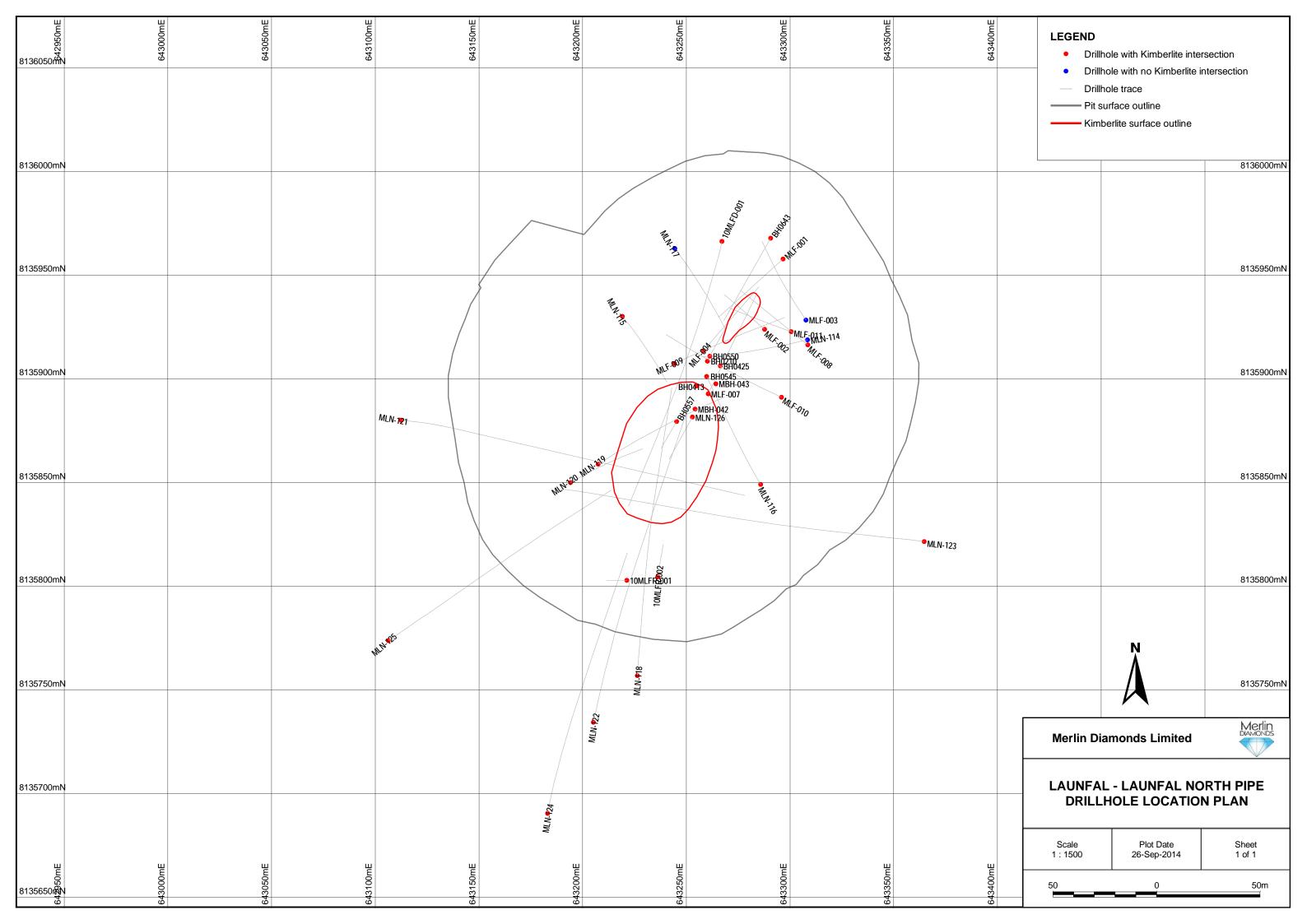


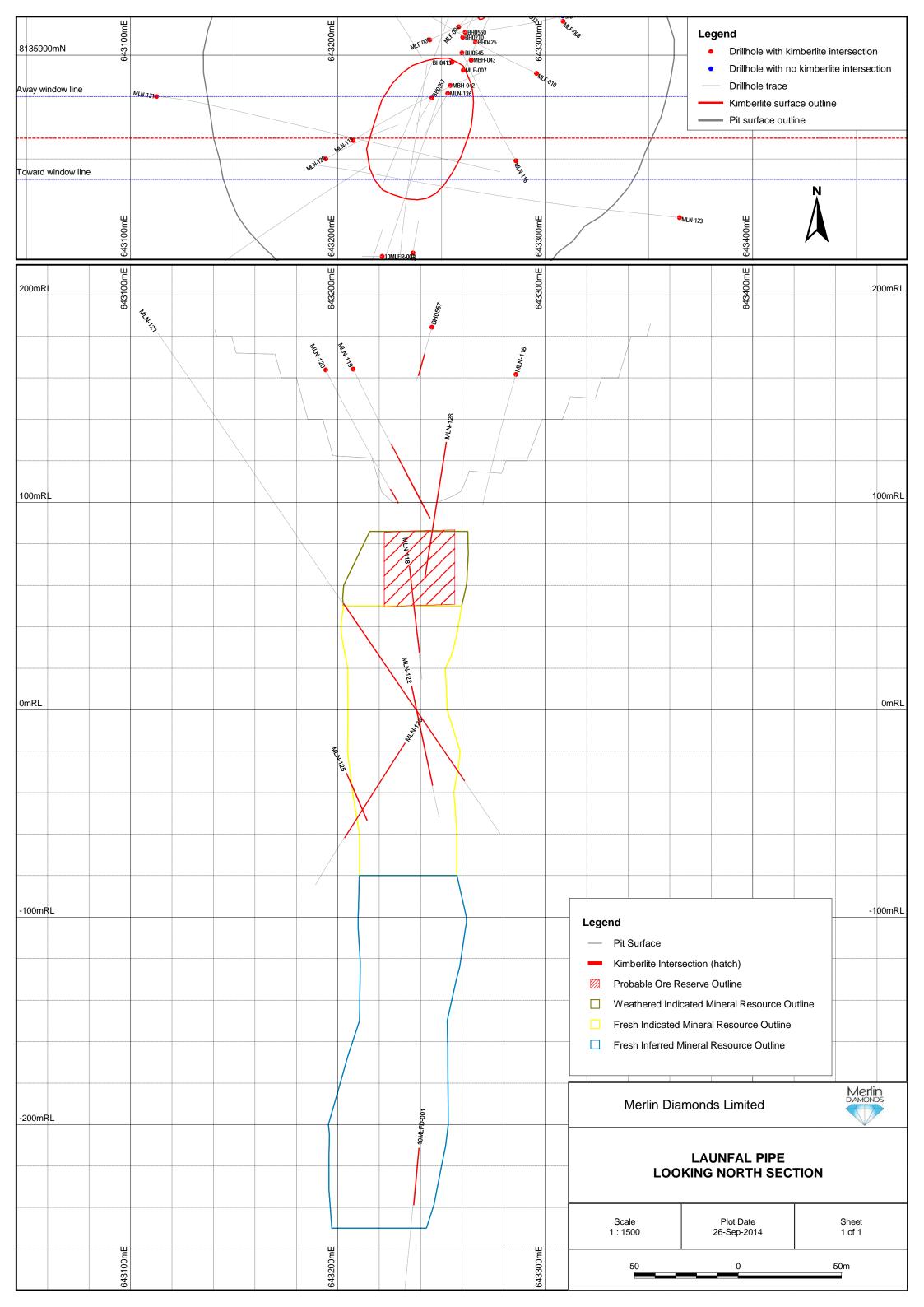


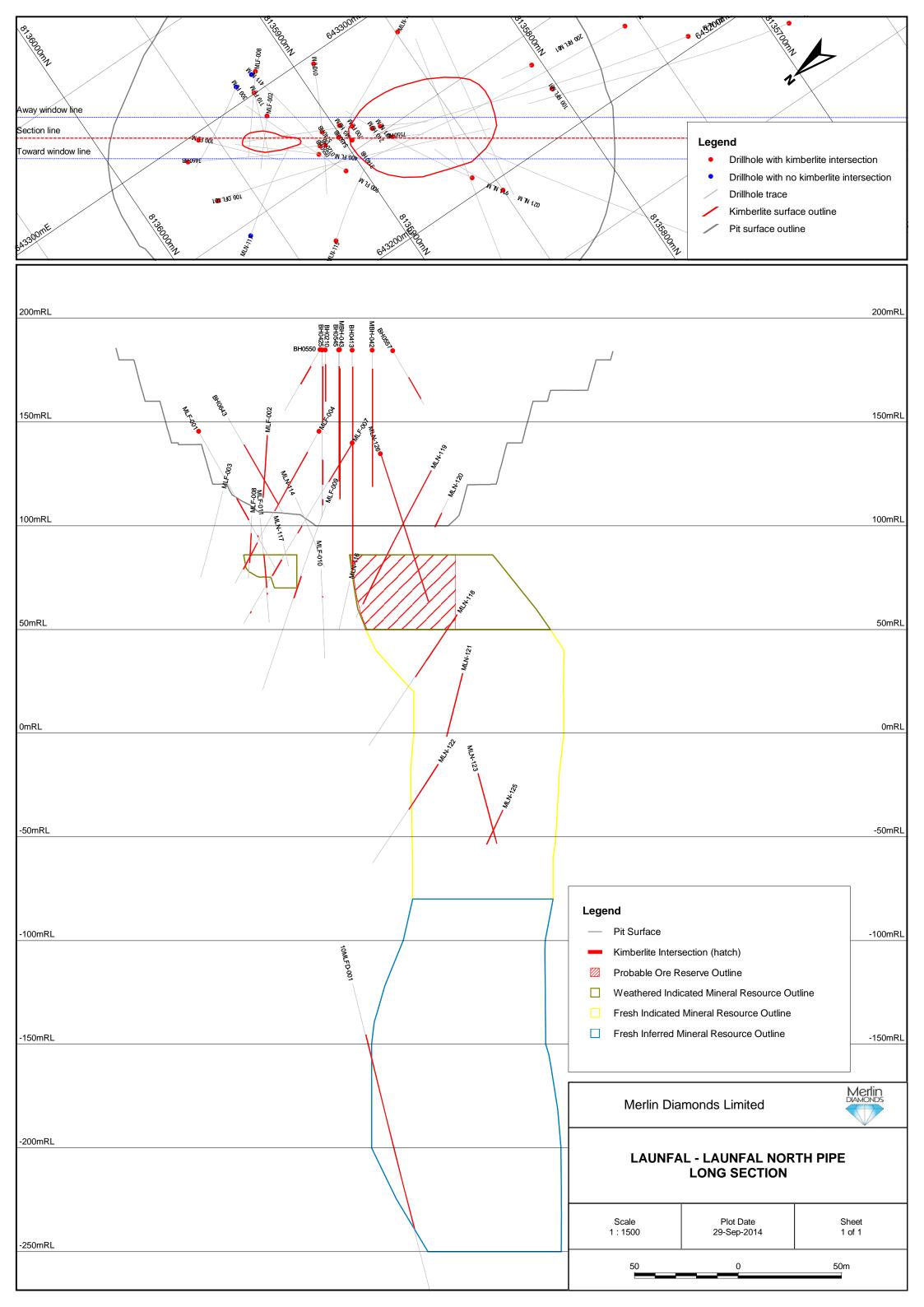


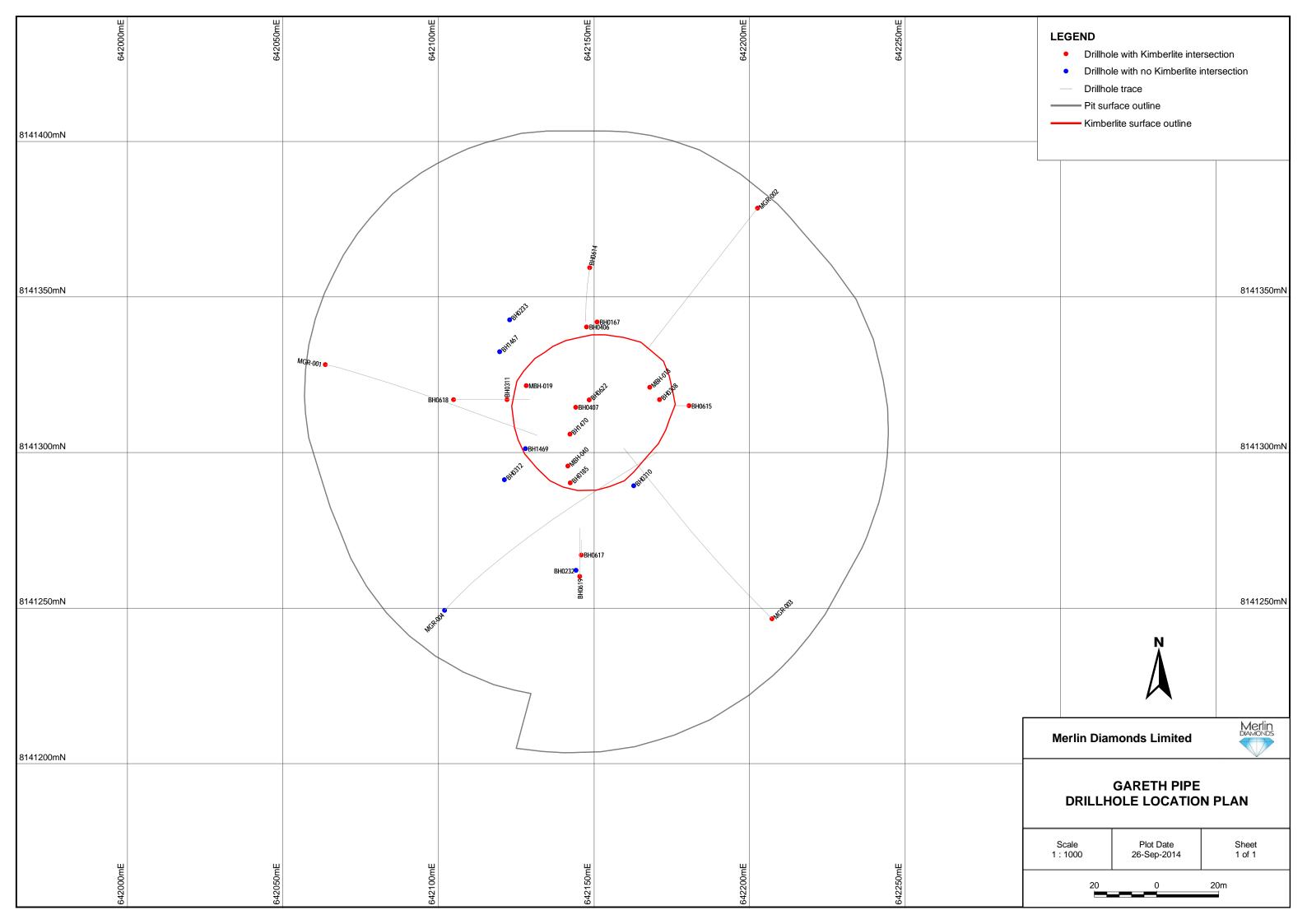


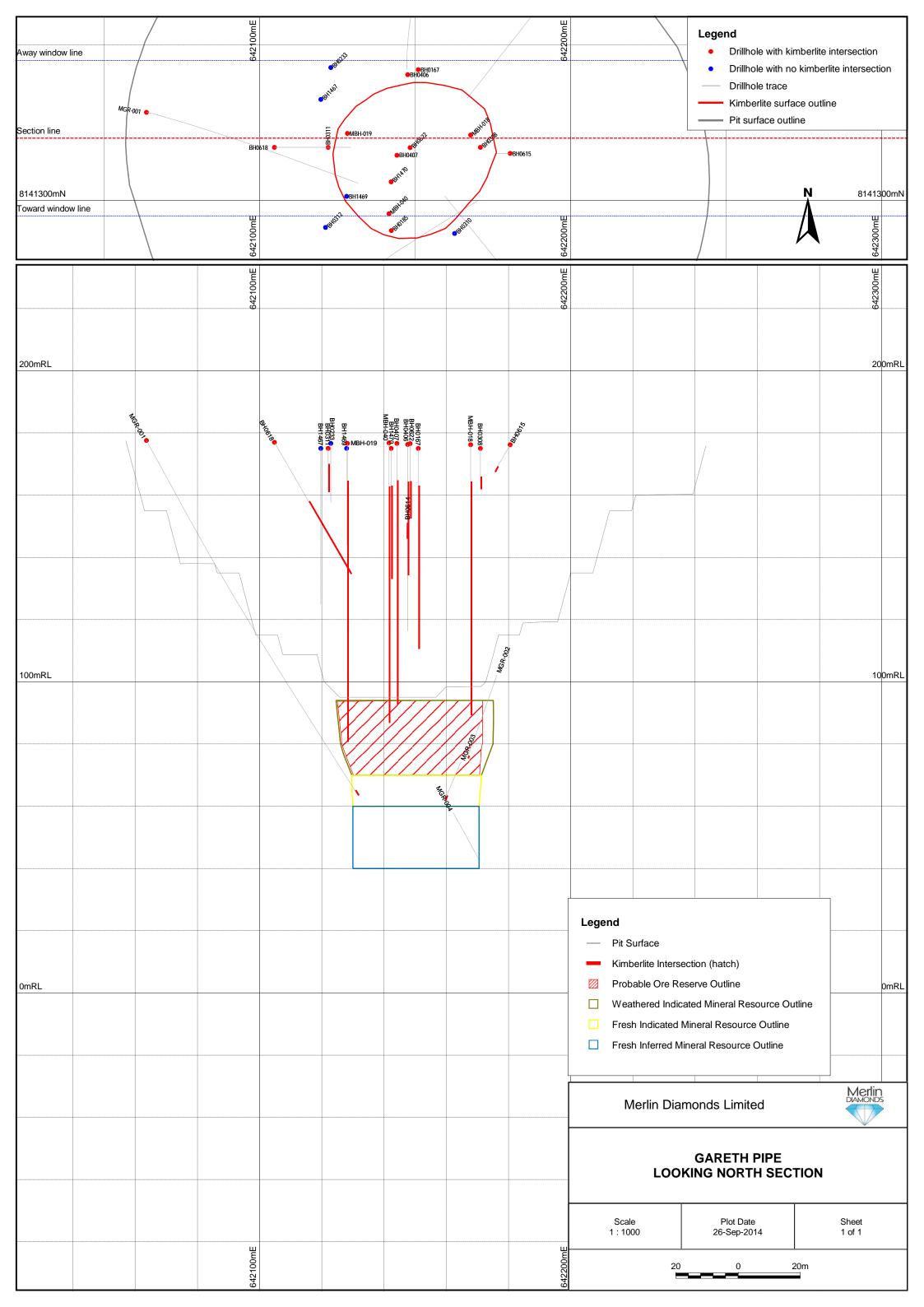


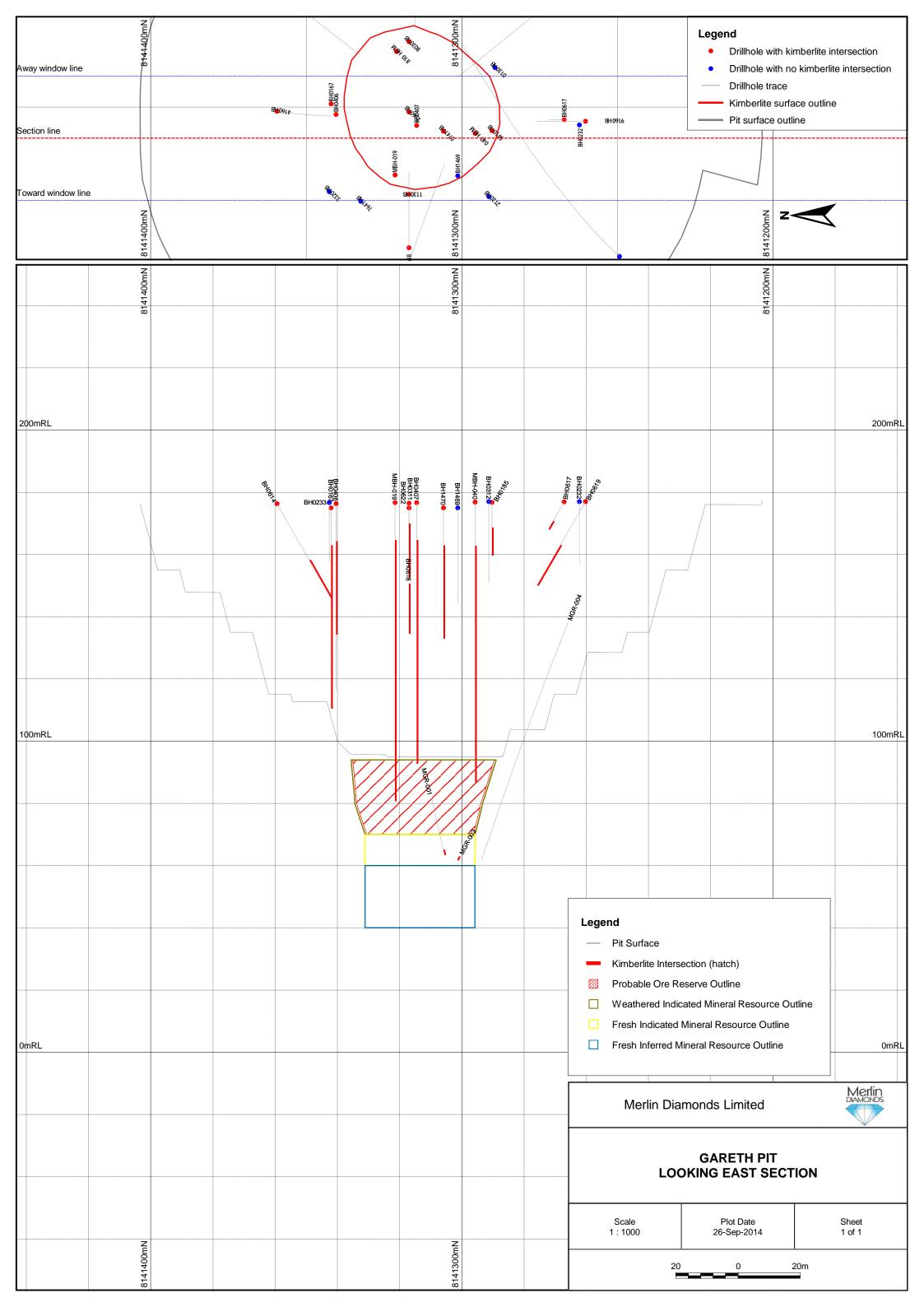


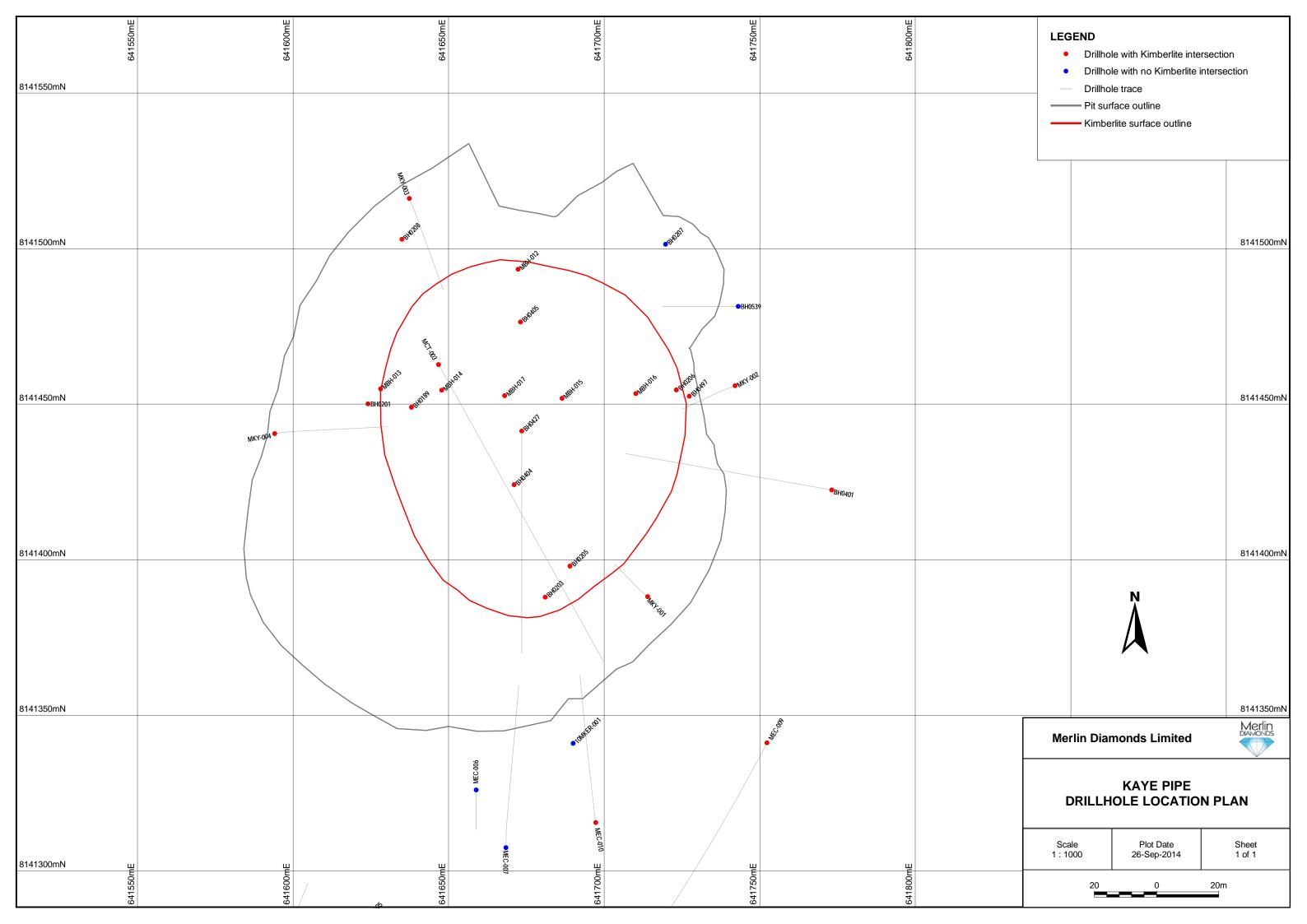


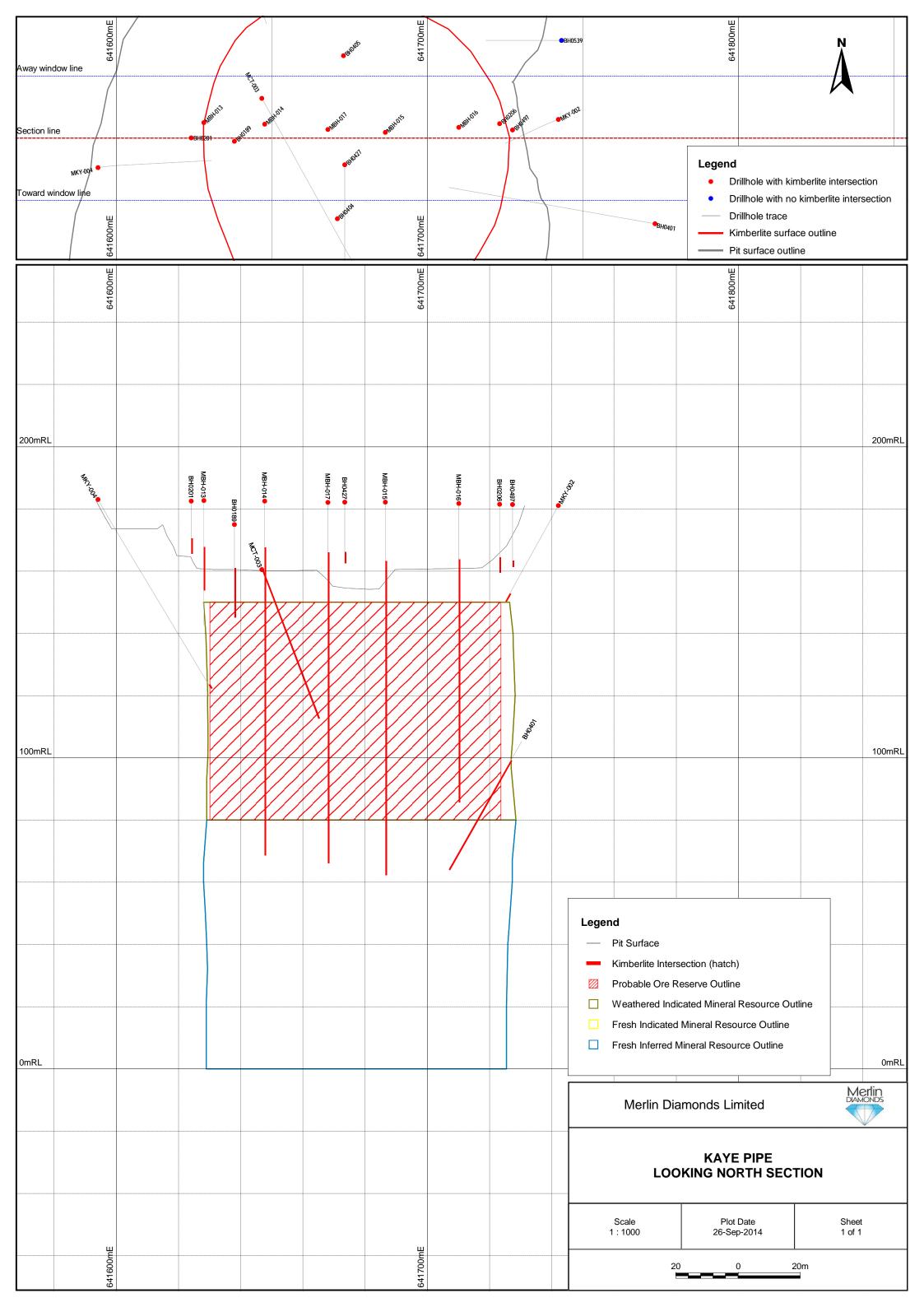


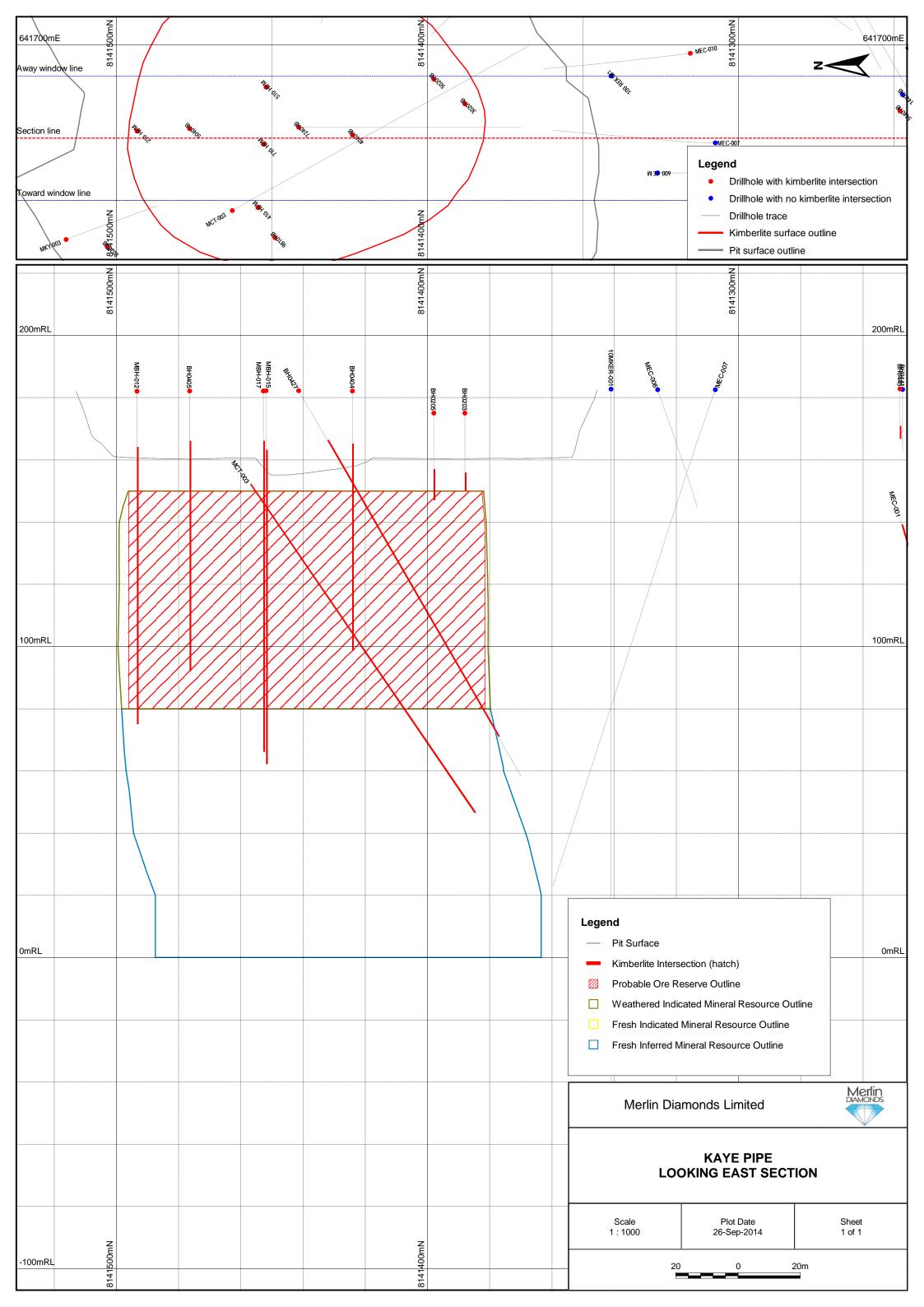


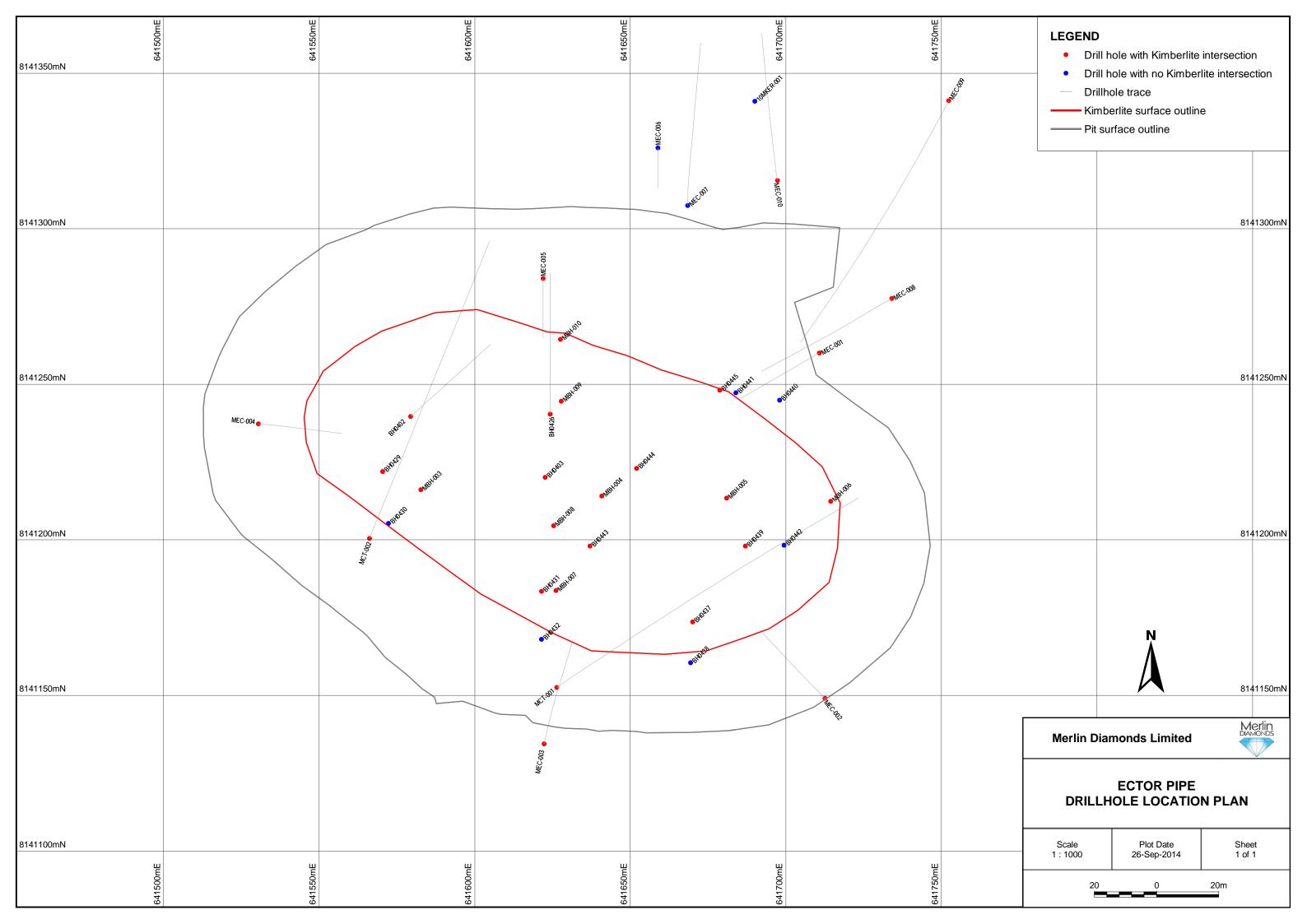


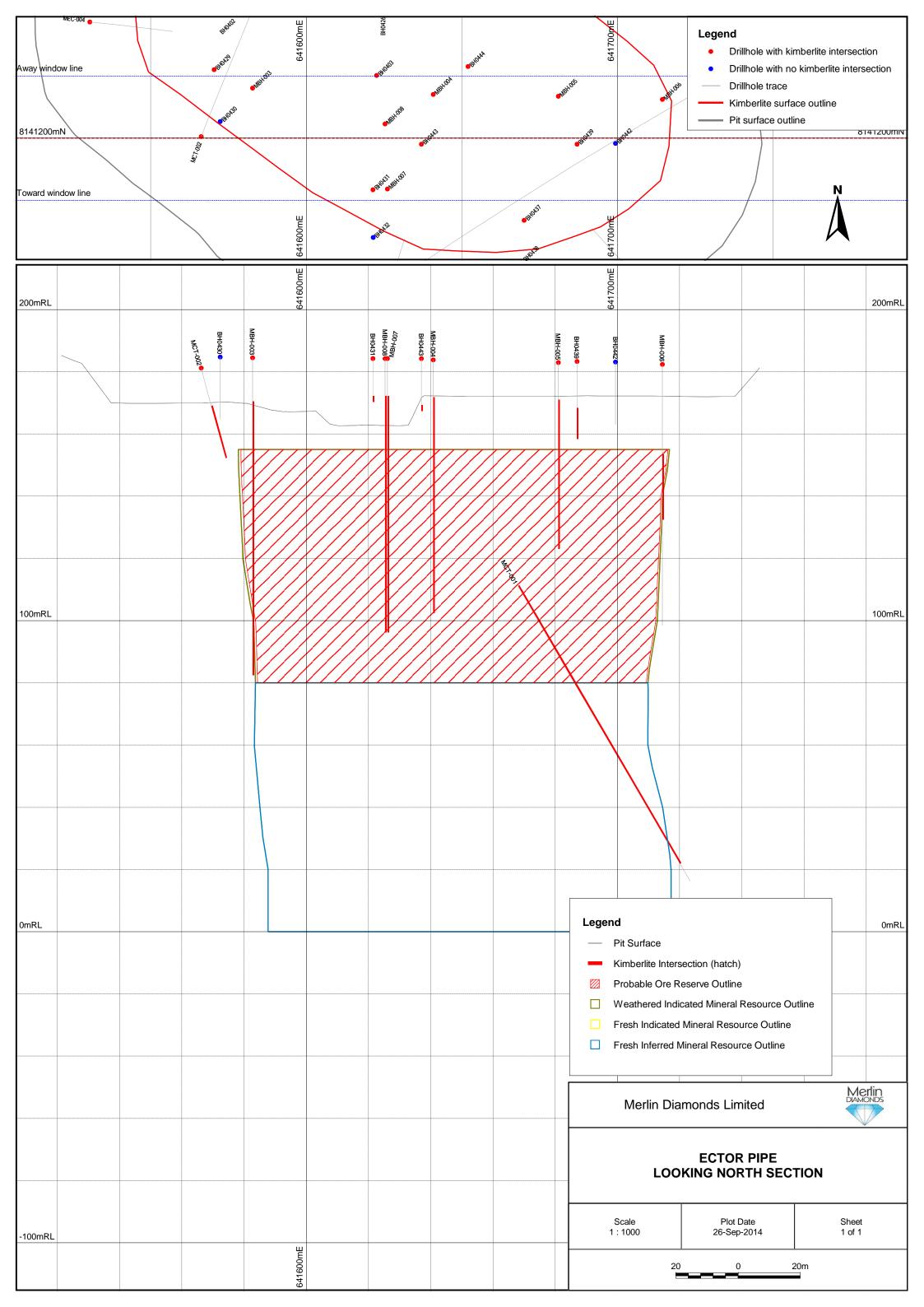


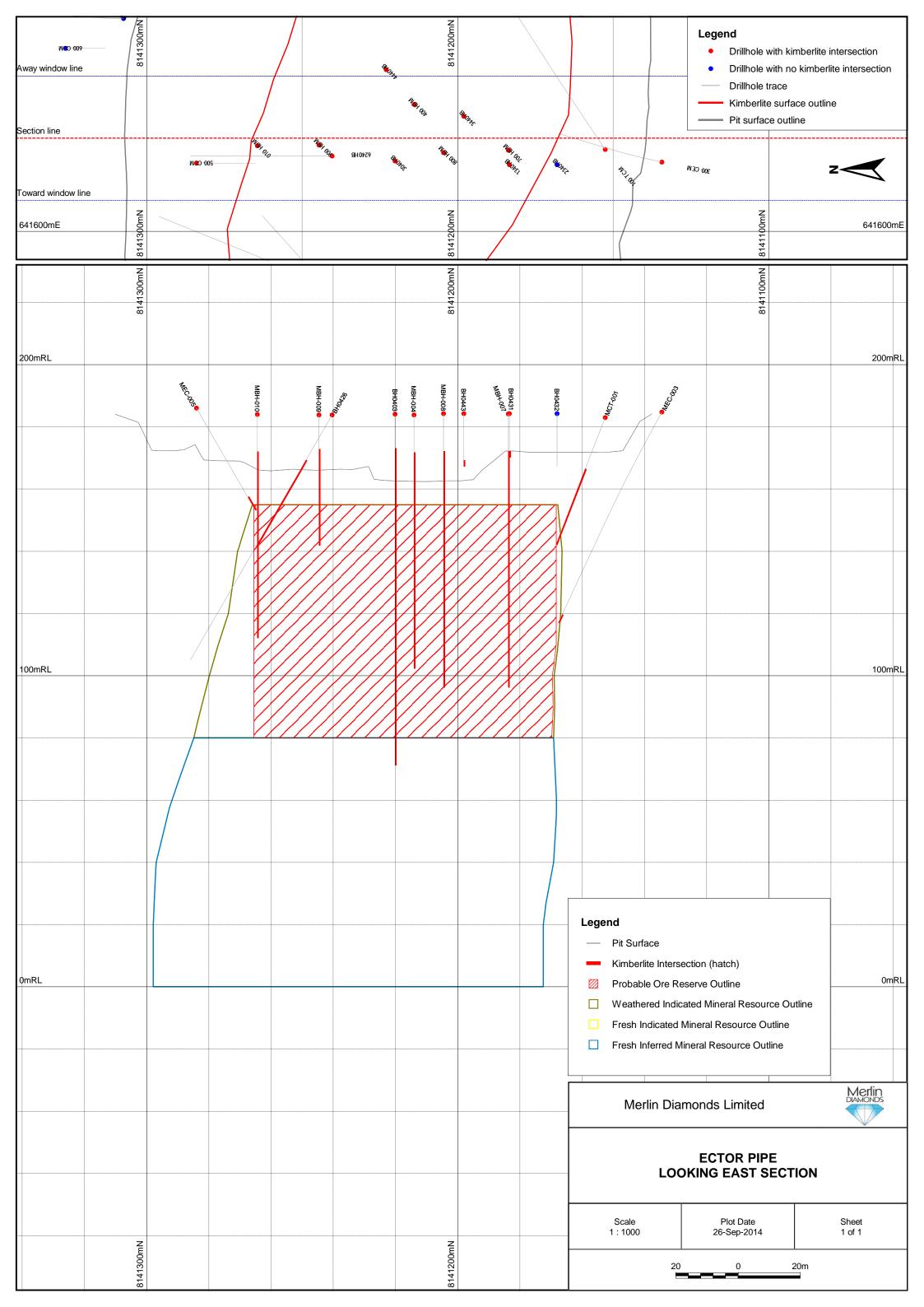


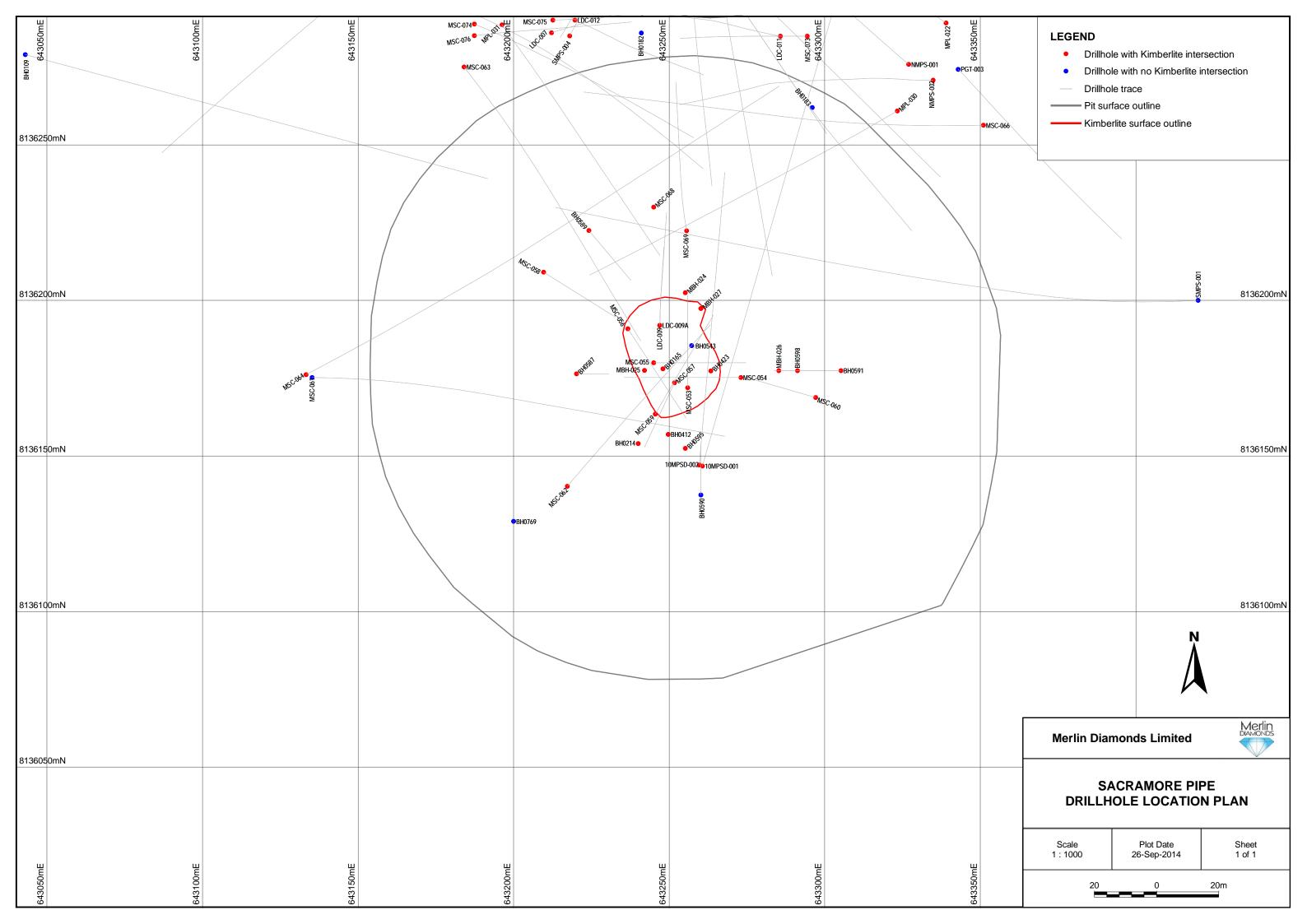


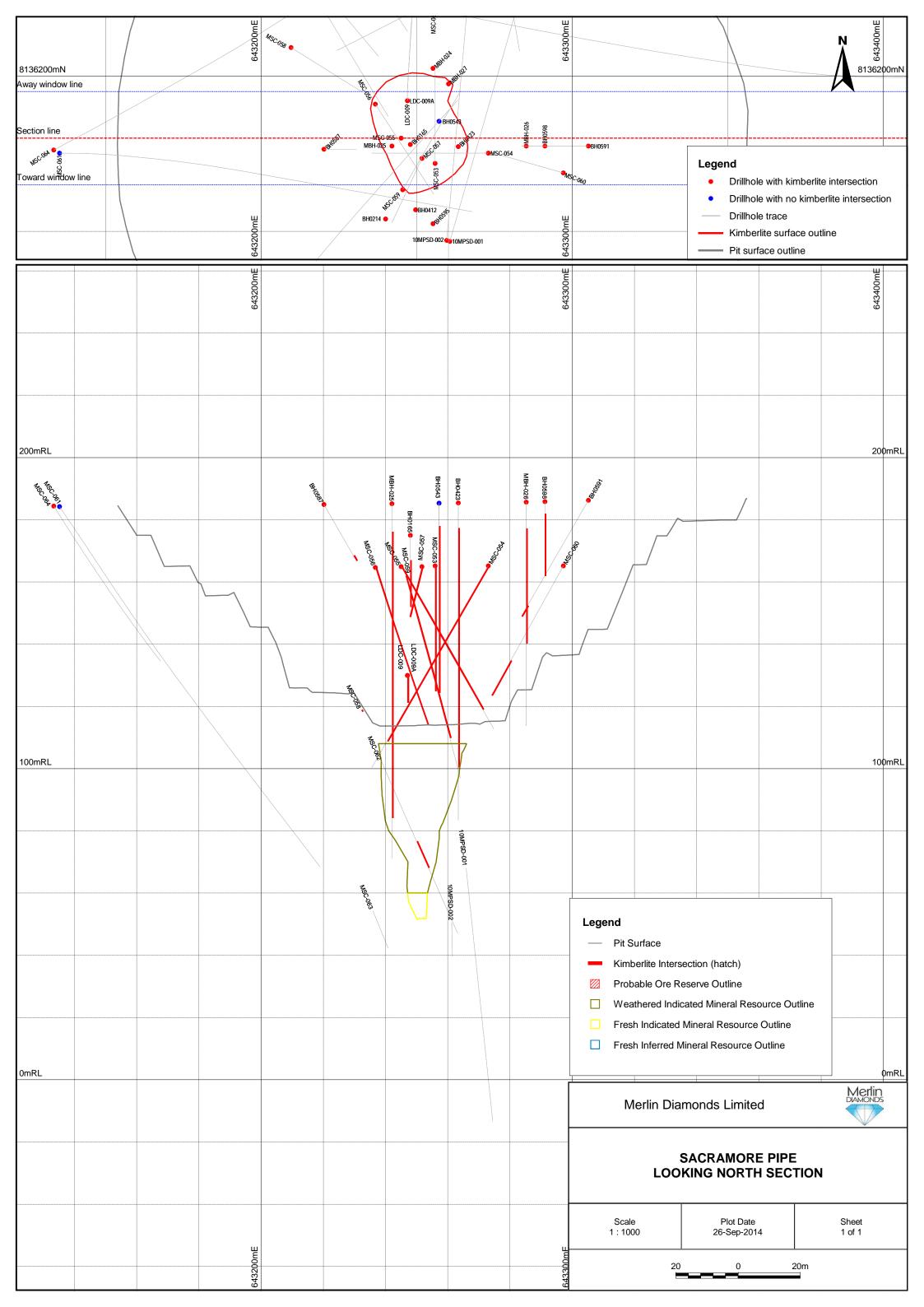


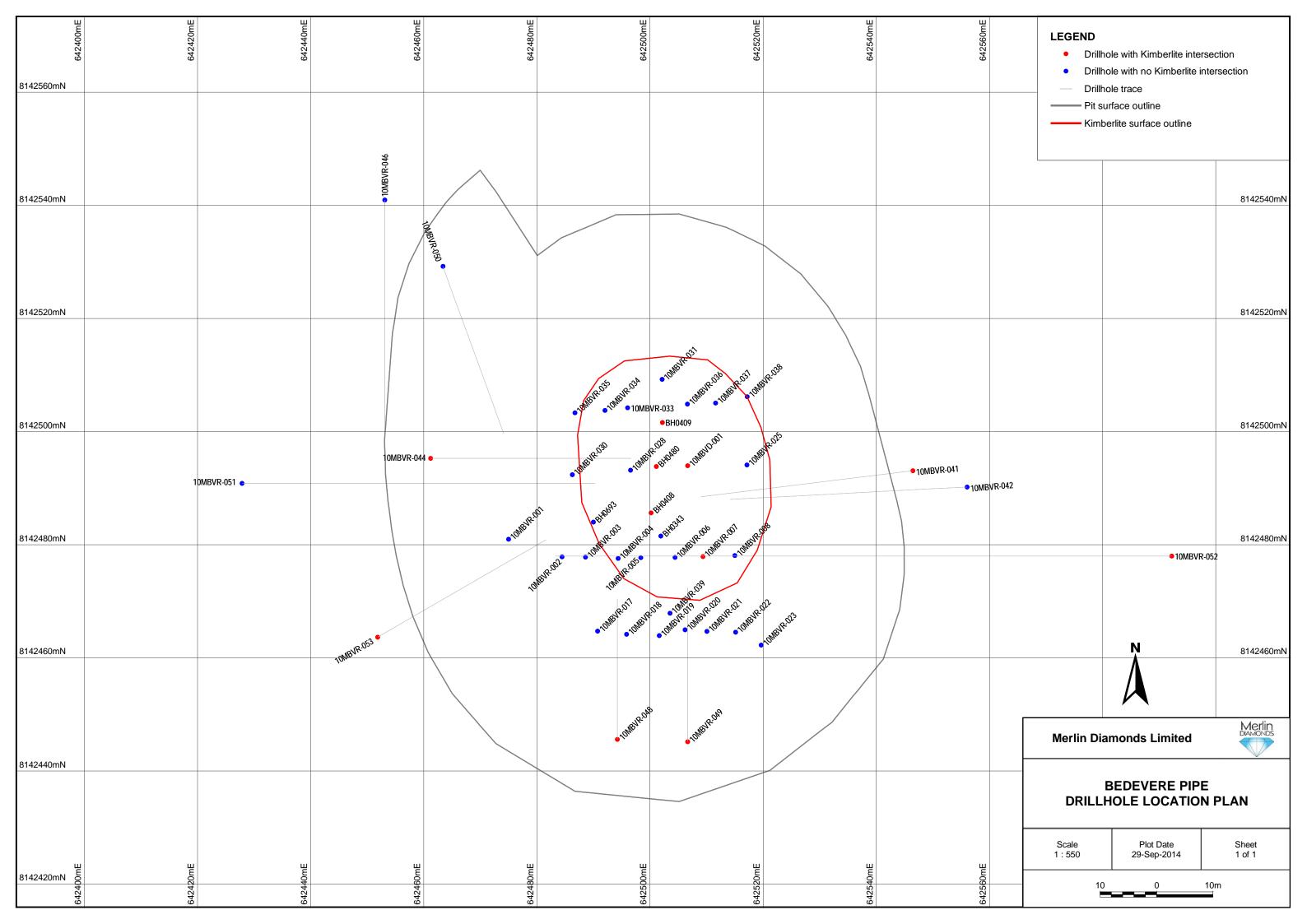


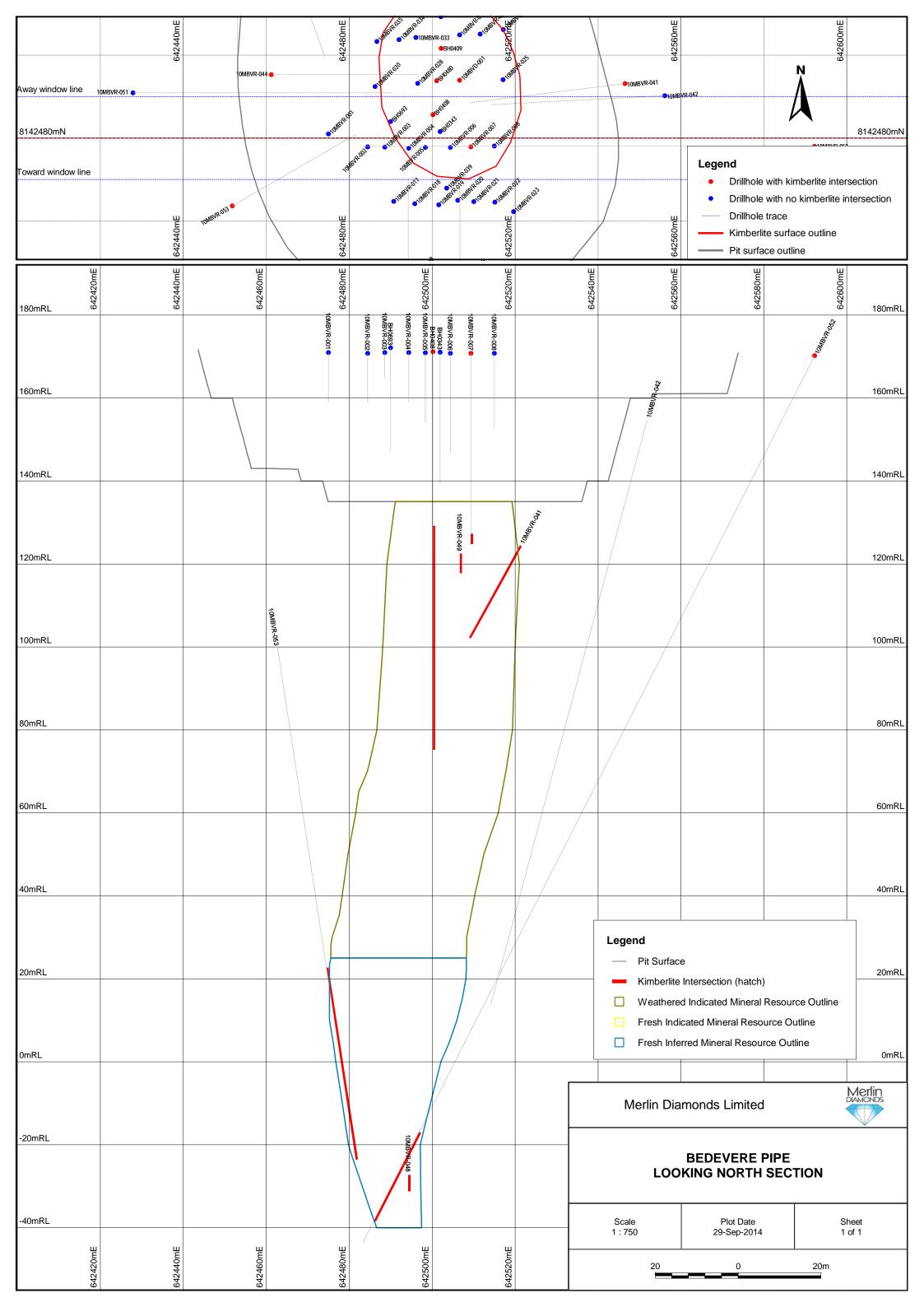


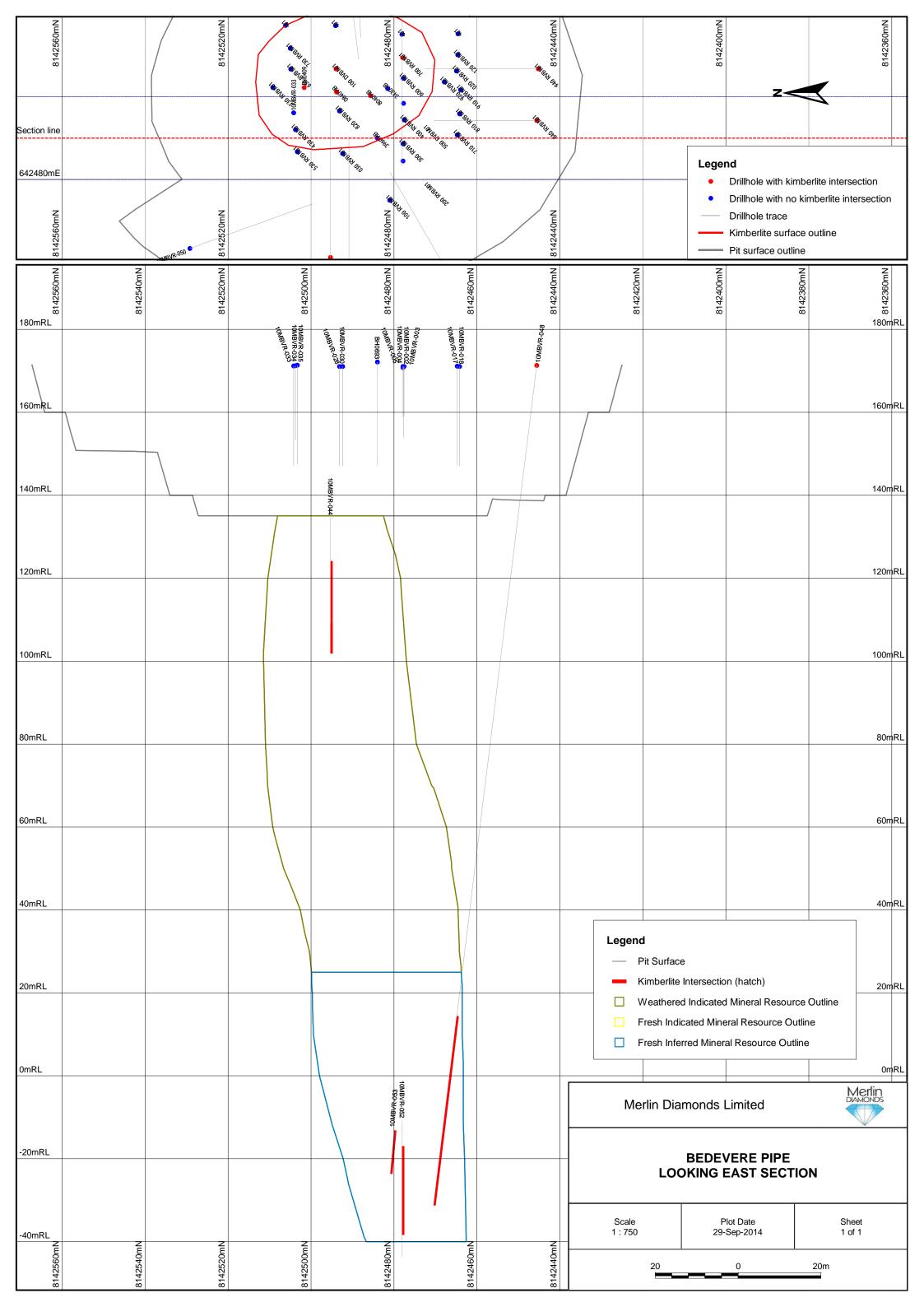


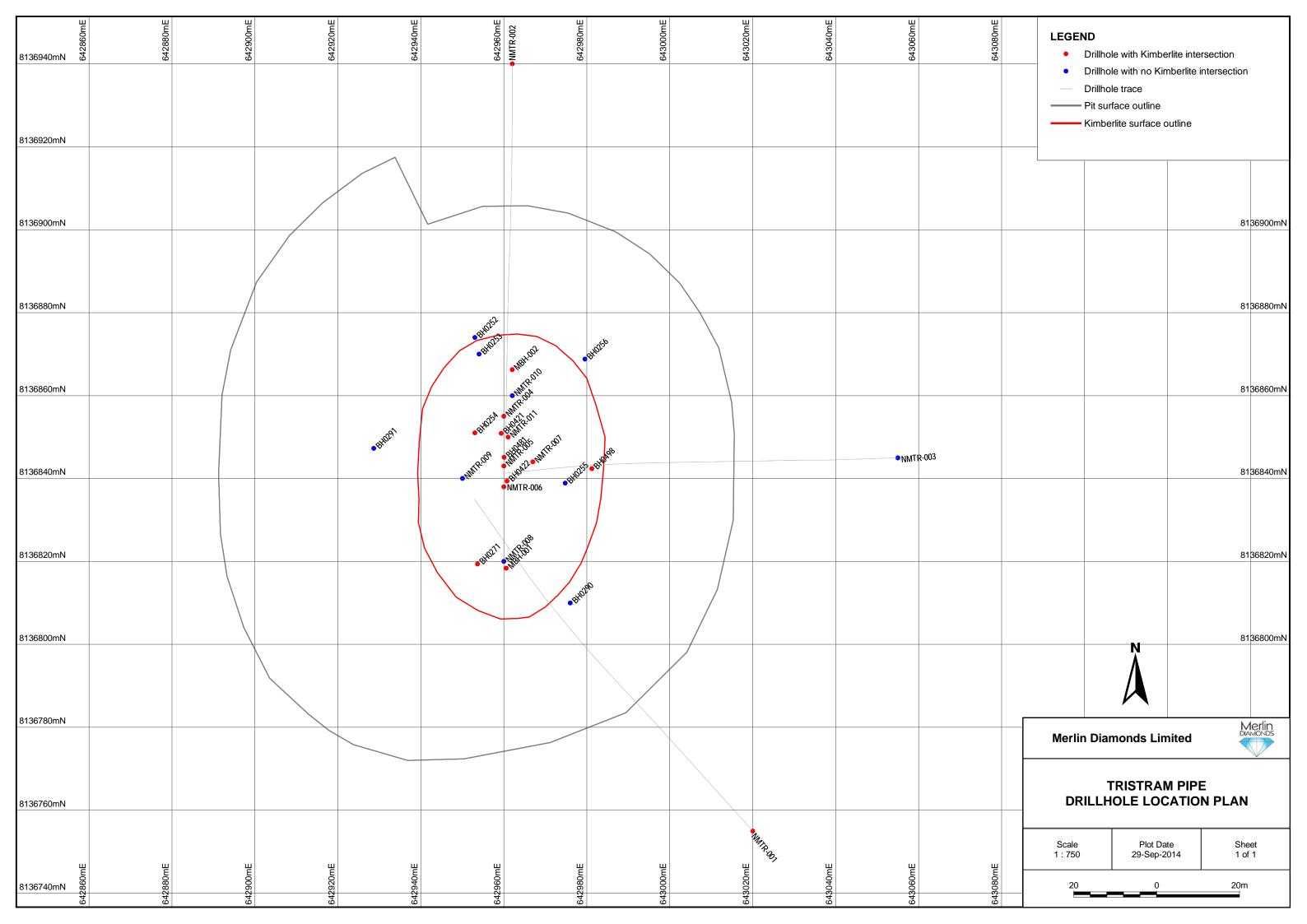


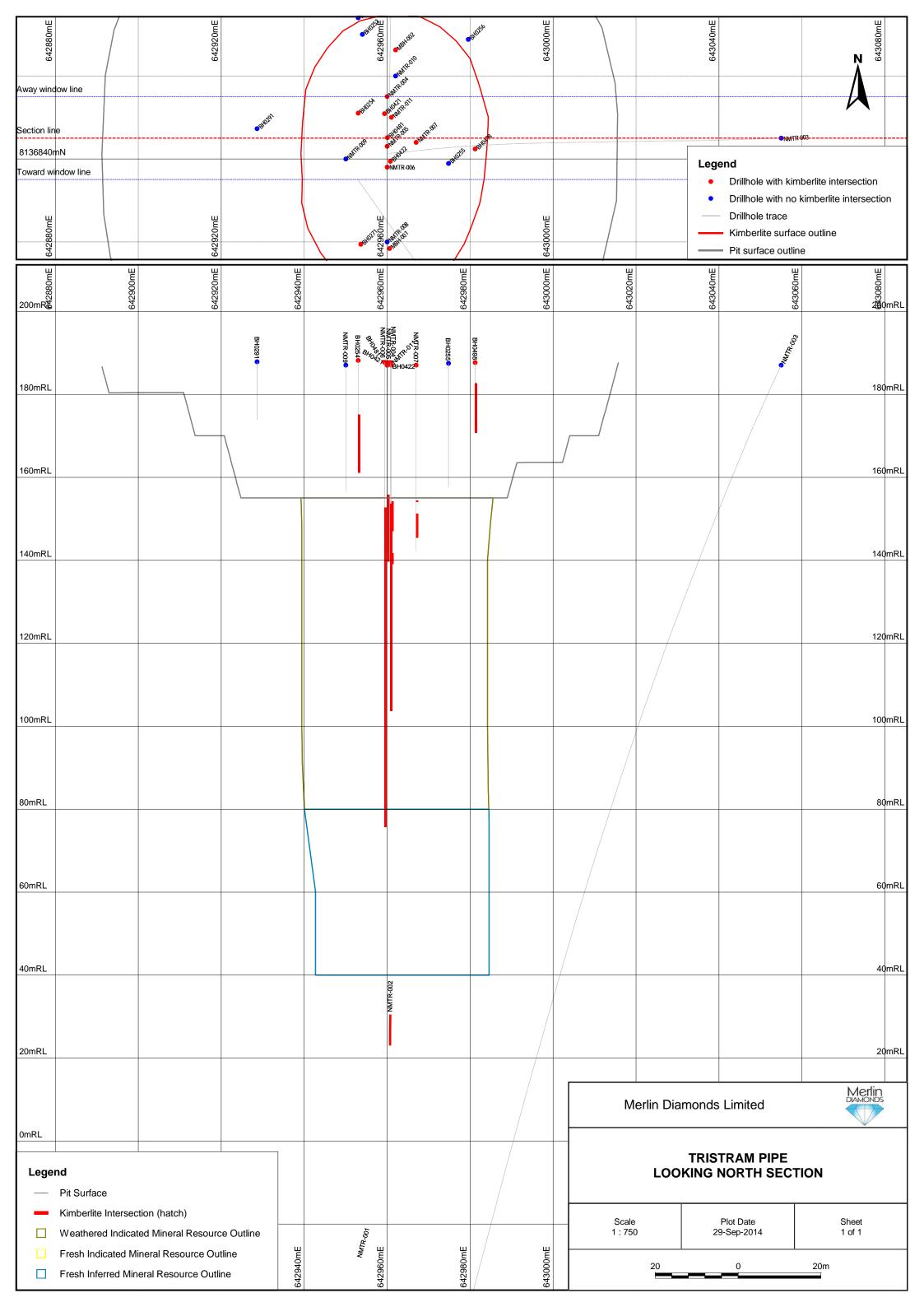


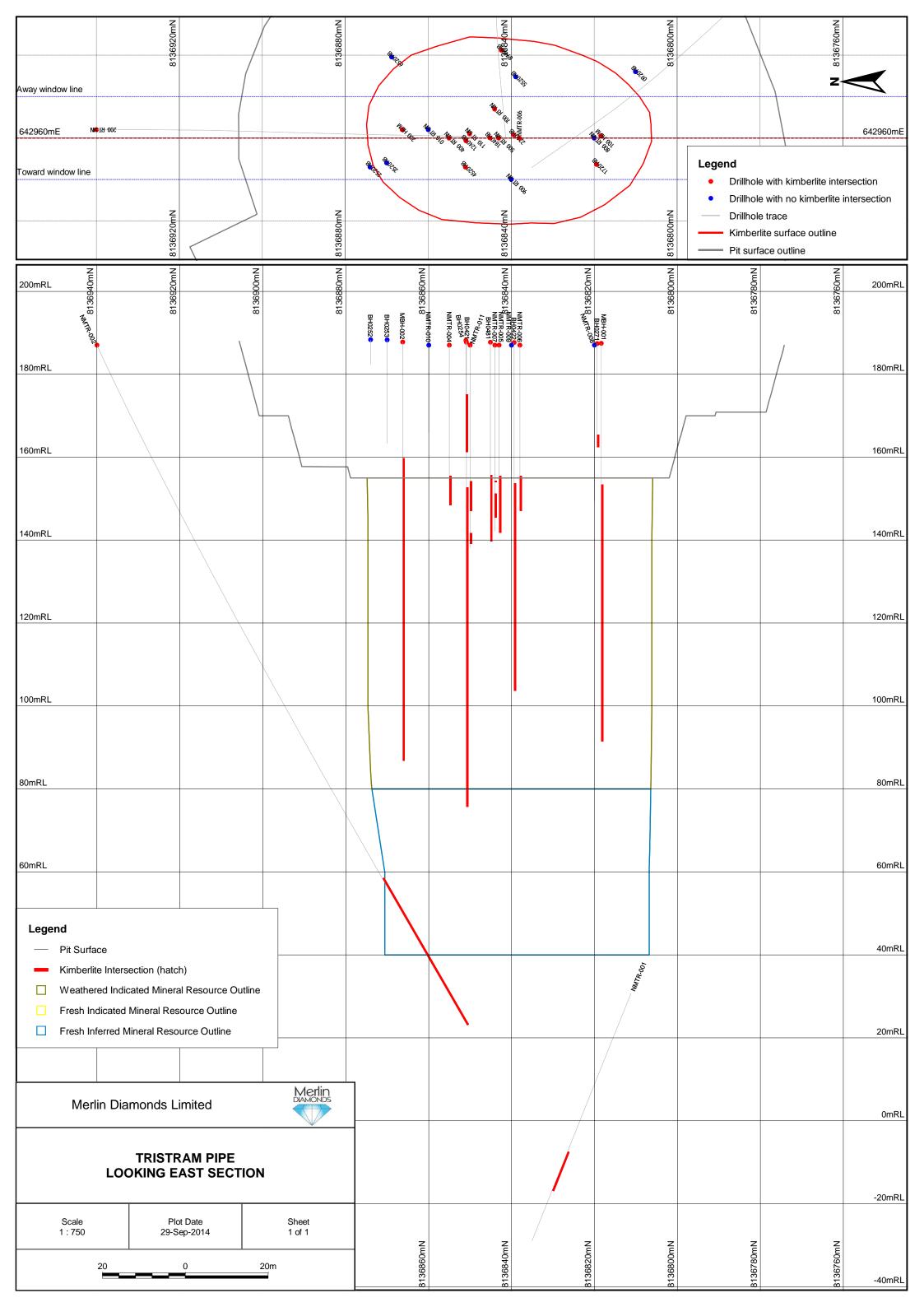












## **APPENDIX D – YEARLY CASHLOW SUMMARY**

## **MERLIN DIAMOND PROJECT - YEARLY FINANCIAL SUMMARY - ORE RESERVE**

YEAR	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
Plant Feed Source	Ywain Gawain	Gwain Excalibur Palomides	Palomides	Launfal Gareth Kaye	Kaye		Kaye Ector	Ector	Ector	Ector	Ector	Ector	
REVENUE													
Total Tonnes Milled	239,760	382,320	381,240	381,240	381,240	382,320	381,240	381,240	381,240	382,320	367,017	-	4,041,177
Grade Milled (cpht)	38	30	17	14	12	12	11	10	10	10	10		15
Total Carats Recovered	91,467	113,911	64,575	53,419	45,950	46,080	40,325	39,143	39,143	39,254	37,683	-	610,951
TOTAL Revenue AUD\$	35,630,144	59,174,002	32,318,572	30,314,469	29,107,298	31,103,926	25,008,982	23,622,106	24,917,412	26,285,903	27,508,024	686,202	345,677,039
SITE OPERATING COST													
TOTAL Operating Cost	13,612,124	16,885,020	16,548,777	15,960,982	16,371,114	16,728,163	17,097,461	16,880,806	16,758,137	17,207,389	17,485,698	600,837	182,136,508
OFF-SITE COSTS													
TOTAL Off-Site Costs	1,960,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,265,000	-	25,285,000
TOTAL CASH OUTFLOW													
Net Cash (EBITDA) (AUD\$)	17,551,449	39,120,863	12,840,746	11,753,888	10,158,583	11,811,359	5,393,218	4,222,855	5,640,686	6,559,779	7,750,048	85,302	132,888,775
Cumulative Cash Flow (AUD\$)	17,551,449	56,672,312	69,513,058	81,266,945	91,425,529	103,236,888	108,630,106	112,852,961	118,493,646	125,053,426	132,803,474	132,888,775	132,888,775