



27 April 2021

**ASX CODE: MTB**

## **THE KIHABE POLYMETALLIC Zn/Pb/Ag/V<sub>2</sub>O<sub>5</sub>/Ge/Cu DEPOSIT, BOTSWANA**

### **MINERALOGICAL TEST WORK CONDUCTED ON VANADIUM WITHIN THE OXIDE ZONE OF THE KIHABE DEPOSIT**

Encouraging results from mineralogical test work recently conducted by the Department of Earth Sciences, Naples University, Italy and ALS Laboratories, Western Australia on samples containing Vanadium from the **oxide zone** of the Kihabe Deposit, have shown that the **dominant host for Vanadium is the lead-zinc-vanadium oxide mineral Descloizite**.

Previous test work conducted on the totally oxidized Nxuu Deposit, seven kilometres to the east of the Kihabe Deposit also confirmed that Vanadium was hosted in Descloizite. Refer to ASX Announcement of 12 December 2018 and Page 3 of this announcement (**DESCLOIZITE**).

In Descloizite, Vanadium Pentoxide (V<sub>2</sub>O<sub>5</sub>) is 1.785 times the grade of Vanadium.

### **EXTENT OF V<sub>2</sub>O<sub>5</sub> MINERALISED DOMAINS WITHIN THE KIHABE DEPOSIT**

The Company has assembled data from all drill holes in the Kihabe Deposit which were assayed for Vanadium to now show the (V<sub>2</sub>O<sub>5</sub>) grades alongside the Vanadium grades. Over various drilling campaigns conducted on the Kihabe Deposit Vanadium was not always considered to be of primary importance and not all drill holes were assayed for Vanadium because of the then prevailing low Vanadium price.

Drill holes assayed to date for Vanadium show that there is potentially a 200m SW zone (Zone 1) and a 500m NE zone (Zone 4) of Vanadium mineralisation within the oxide zone of the overall 2.4km strike length of the Kihabe Deposit. A review of the mineralised drill hole intersections within the **oxide zone**, shows the potential for V<sub>2</sub>O<sub>5</sub> intersections to significantly add to the overall width of the mineralised domains, as they extend beyond those of Zn/Pb/Ag. With the recent increases in prices, these V<sub>2</sub>O<sub>5</sub> zones have the potential to add significantly to the commercial value of the Kihabe Deposit.

### **RECOVERY OF DESCLOIZITE FROM THE KIHABE DEPOSIT**

Metallurgical test work on the recovery of Descloizite (V<sub>2</sub>O<sub>5</sub>) has not yet been conducted on the Kihabe Deposit samples. However, previous test work on the recovery of Descloizite from the Nxuu Deposit, 7km to the East of the Kihabe Deposit, indicated that 80.70% can be recovered on site through gravity separation followed by flotation using a hydroxamate acid for recovery.

### **CONTRIBUTION OF INDIVIDUAL Zn/Pb/Ag/V<sub>2</sub>O<sub>5</sub>/Ge/Cu MINERALS**

With the recent increase in prices of silver, vanadium pentoxide and copper the Company, in assembling this data, now shows mineralised intersections of each individual mineral, rather than showing combined Zn/Pb/Ag

intersections as a Zn equivalent grade. By showing each mineral separately, the contribution Zn/Pb/Ag will individually make to the Project can be seen, alongside  $V_2O_5$  and Ge in the SW zone (Zone 1) and alongside  $V_2O_5$  and Cu in the NE zone (Zone 4). All the individual intersection of mineralisation have previously been reported to ASX.

#### **WEIGHTED AVERAGE GRADES OF Zn/Pb/Ag/ $V_2O_5$ /Ge IN THE KIHABE DEPOSIT SW ZONE 1**

The 15 drill holes in Sections 1 to 7 (Refer to Figures 2 to 19) assayed for Vanadium in the **SW zone (Zone 1)**, show the following weighted average assay grades for V/( $V_2O_5$ )/Zn/Pb/Ag/Ge over the various mineralised intersections. In calculating the weighted average grades, only the  $V_2O_5$  and Ge grades in the oxide zone have been taken into account together with the Zn/Pb/Ag grades. The Zn/Pb/Ag grades in the sulphide zone have also been included in the weighted average grade calculations for those elements, as follows:-

- Average  $V_2O_5$  grade over **288m** of mineralisation = **1,085ppm  $V_2O_5$**
- Average **Zn** grade over **410m** of mineralisation = **3% Zn**
- Average **Pb** grade over **300m** of mineralisation = **1.82% Pb**
- Average **Ag** grade over **311m** of mineralisation = **46.92g/t (1.51oz/t) Ag**
- Average **Ge** grade over **66m** of mineralisation = **7g/t**

#### **KIHABE DEPOSIT DRILL HOLES ASSAYED FOR GERMANIUM**

Section 8, (Refer to Figures 20 to 26) oriented at 60 deg, a long drill section of the Deposit, as opposed to deposit cross sections, shows results from 6 holes drilled into the Kihabe Deposit in November 2017. These six drill holes are also shown in Sections 1 to 6 (Figures 3 to 18). These 6 holes are the only holes drilled into the Kihabe Deposit that have ever been assayed for Germanium. These holes show the potential for the discovery of further Germanium mineralisation along strike in the Kihabe Deposit, which has the potential to make a significant commercial contribution.

#### **MINERALOGICAL TEST WORK ON GERMANIUM**

Initial mineralogical test work was conducted by Naples University on the Kihabe Deposit samples containing Germanium to determine the host mineral of Germanium.

This test work concentrated on testing for Germanium minerals associated with Vanadium. No Germanium minerals were found to be associated with the Vanadium content. The Germanium was mainly contained in iron hydroxides.

Further test work now needs to be conducted on the iron hydroxide content of the Kihabe Deposit to confirm the host mineral for Germanium.

#### **WEIGHTED AVERAGE GRADES OF Zn/Pb/Ag/ $V_2O_5$ IN THE KIHABE DEPOSIT NE ZONE 4**

The 28 drill holes in Sections 1 to 7 of the **Kihabe Deposit NE Zone 4** (Refer to Figures 27 to 43) assayed for Vanadium in the NE zone (Zone 4), show the following weighted average assay grades for V/( $V_2O_5$ )/Zn/Pb/Ag over the various mineralised intersections. In calculating the weighted average grades, only  $V_2O_5$  grades in the **oxide zone** have been taken into account, together with the Zn/Pb/Ag grades. The Zn/Pb/Ag grades in the sulphide zone have also been included in the weighted average grade calculations for those elements, as follows.

- Average  $V_2O_5$  grade over **190m** of mineralisation = **694ppm  $V_2O_5$**
- Average **Zn** grade over **782m** of mineralisation = **2.32% Zn**
- Average **Pb** grade over **325m** of mineralisation = **2.02% Pb**
- Average **Ag** grade over **304m** of mineralisation = **64.98g/t (2.09oz/t Ag)**
- Average **Cu** grade over **235m** of mineralisation = **0.24% Cu**

## KIHABE DEPOSIT METALLURGICAL RECOVERIES CONFIRMED TO DATE

Metallurgical test work conducted to date on the Kihabe Deposit has shown that:

- Zn hosted in Baileychlorite within the oxide zone can be recovered on site by acid leaching, yielding an extraction rate of 97%.
- Zn hosted in Sphalerite within the sulphide zone can be recovered by flotation giving a 58% Zn concentrate grade and a final recovery of 94%, that can be transported from site.
- Pb hosted in Galena within the oxide zone can be recovered by flotation giving a 76% Pb concentrate grade and a final recovery of 92% that can be transported from site.
- Pb hosted in Galena within the sulphide zone can be recovered by flotation giving a 76% Pb concentrate grade and a final recovery of 88% that can be transported from site.
- Ag within the sulphide zone can be recovered by flotation and yielding a final recovery of 96%.

## DESCLOIZITE

The table below shows the percentages of the ELEMENT CONTENT of DESCLOIZITE and the COMPONENT HOSTS containing the elements in Descloizite.

With a gram molecular weight of 404.54 grams, the mineral/chemical make-up of Descloizite is as below:

(The gram molecular weight of Vanadium metal = 50.9 and thus is 12.59% of Descloizite.)

ELEMENT CONTENT	COMPONENT HOST CONTAINING THE ELEMENT
12.59% Vanadium metal (V) hosted within	22.48% Vanadium Pentoxide ( $V_2O_5$ )
16.16% Zinc (Zn) metal hosted within	20.12% ZnO
51.22% Lead (Pb) metal hosted within	55.17% PbO
0.25% Hydrogen (H) hosted within	2.23% $H_2O$
19.77% Oxygen (O)	
<b>100%</b>	<b>100%</b>

The 22.48% Vanadium Pentoxide ( $V_2O_5$ ) (as shown in the Table as the COMPONENT HOST CONTAINING THE ELEMENT Vanadium metal (V) of 12.50%), **should not be construed as being the amount of  $V_2O_5$  that can be recovered.**

## Forward Looking Statement

This report contains forward looking statements in respect of the projects being reported on by the Company. Forward looking statements are based on beliefs, opinions, assessments and estimates based on facts and information available to management and/or professional consultants at the time they are formed or made and are, in the opinion of management and/or consultants, applied as reasonably and responsibly as possible as at the time that they are applied.

Any statements in respect of Ore Reserves, Mineral Resources and zones of mineralisation may also be deemed to be forward looking statements in that they contain estimates that the Company believes have been based on reasonable assumptions with respect to the mineralisation that has been found thus far. Exploration targets are conceptual in nature and are formed from projection of the known resource dimensions along strike. The quantity and grade of an exploration target is insufficient to define a Mineral Resource. Forward looking statements are not statements of historical fact, they are based on reasonable projections and calculations, the ultimate results or outcomes of which may differ materially from those described or incorporated in the forward-looking statements. Such differences or changes in circumstances to those described or incorporated in the forward-looking

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Such risks, uncertainties and other factors could include but would not necessarily be limited to fluctuations in metals and minerals prices, fluctuations in rates of exchange, changes in government policy and political instability in the countries in which the Company operates.

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**Forward looking statements:** This document contains forward looking statements which should be reviewed and considered as part of the overall disclosure relative to this report.

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#### **Competent Persons' Statements:**

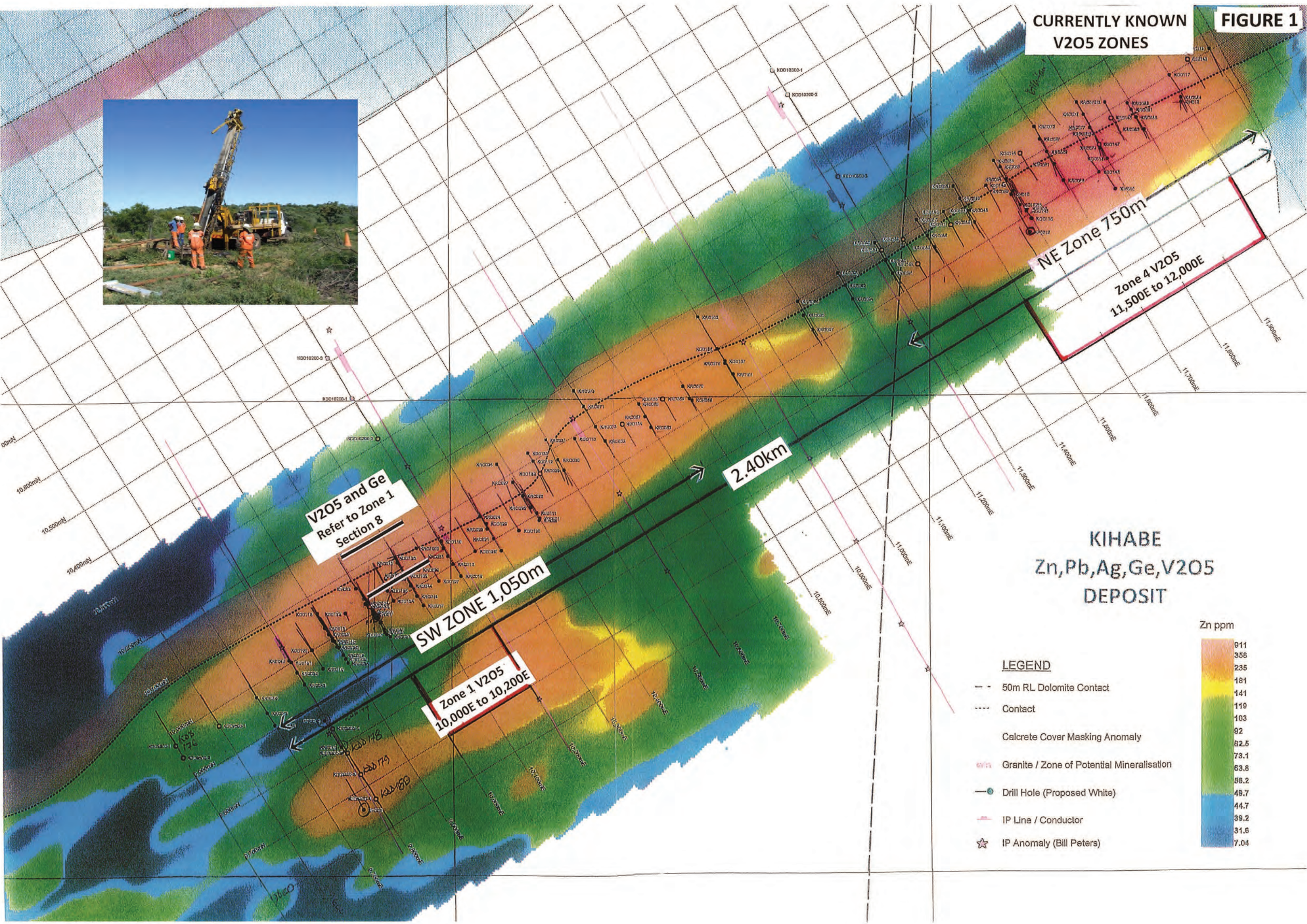
The information in this report that relates to drilling results at the Kihabe Deposit fairly represents information and supporting documentation approved for release by Giles Rodney Dale FRMIT who is a Fellow of the Australasian Institute of Mining & Metallurgy. Mr Dale is engaged as an independent Geological Consultant to the Company. Mr Dale has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)'. Mr Dale consents to the inclusion in this report of the drilling results and the supporting information in the form and context as it appears.

The information in this report that relates to metallurgical test work results conducted on samples from the Kihabe Deposit fairly represents information and supporting documentation approved for release by Mr R Brougham (FAusIMM). The information contained within the Kihabe Metals Recovery Statement, was reviewed by Mr Brougham when consulting to ProMet Engineers. Mr Brougham is an independent qualified person and has sufficient experience relevant to the process recovery under consideration and to the laboratory activity to which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)' of Mr Brougham consents to the inclusion of the stated recoveries in the report of the matters based on the information in the form and context in which it appears.



FIGURE 1

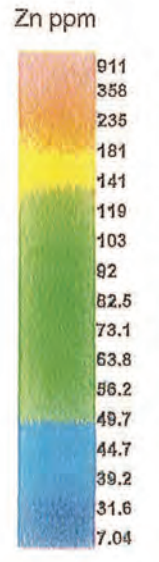
CURRENTLY KNOWN  
V2O5 ZONES



KIHABE  
Zn,Pb,Ag,Ge,V2O5  
DEPOSIT

LEGEND

- - 50m RL Dolomite Contact
- Contact
- Calcrete Cover Masking Anomaly
- Granite / Zone of Potential Mineralisation
- Drill Hole (Proposed White)
- IP Line / Conductor
- ☆ IP Anomaly (Bill Peters)





**FIGURE 2**

340 Deg  
325 Deg

KRC051 7,821,670N

500,994E  
7,821,670N

7,821,660N

SECTION 7  
FIGURE 19

7,821,650N KRC018

501,008E  
7,821,651N

7,821,640N 145 Deg

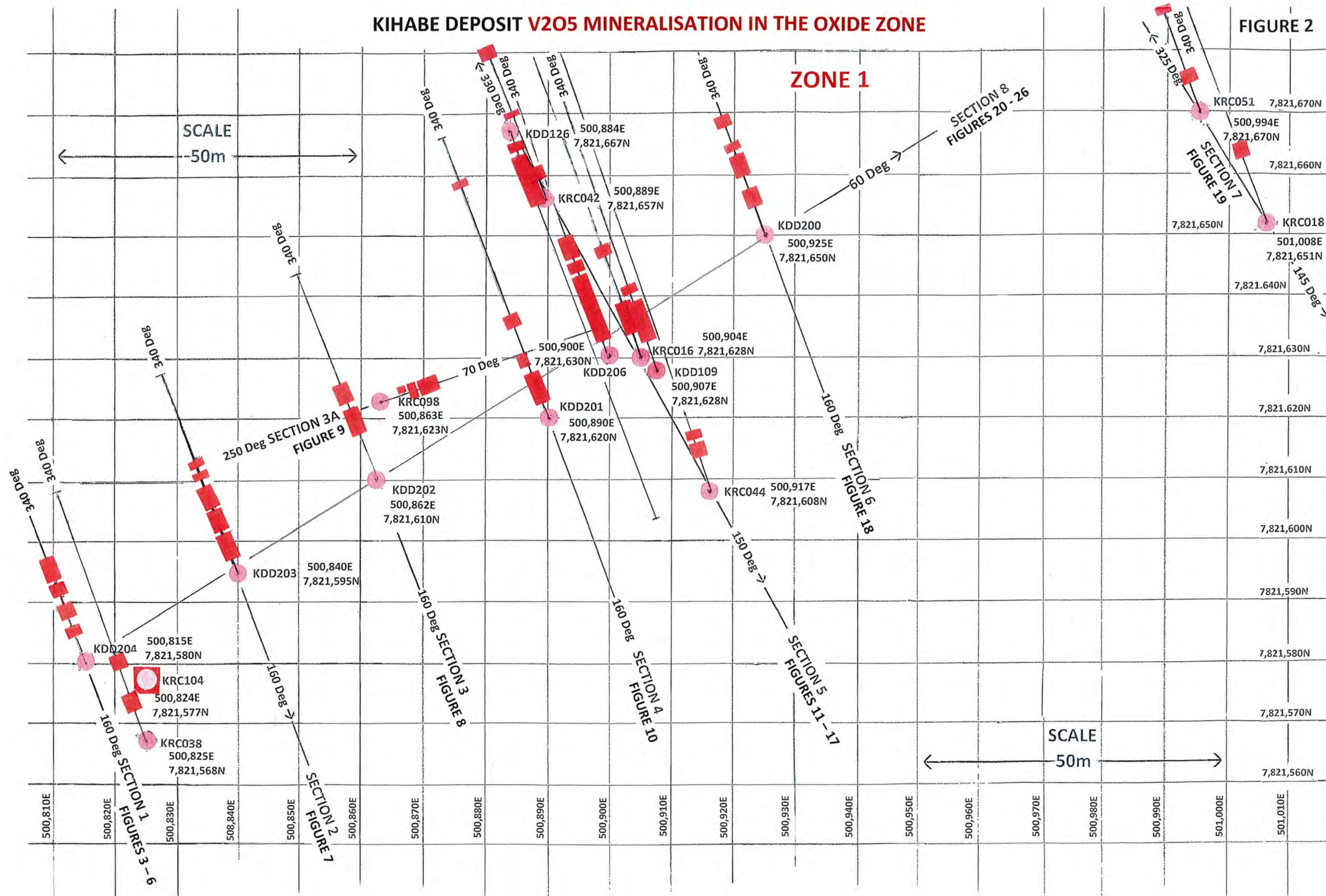
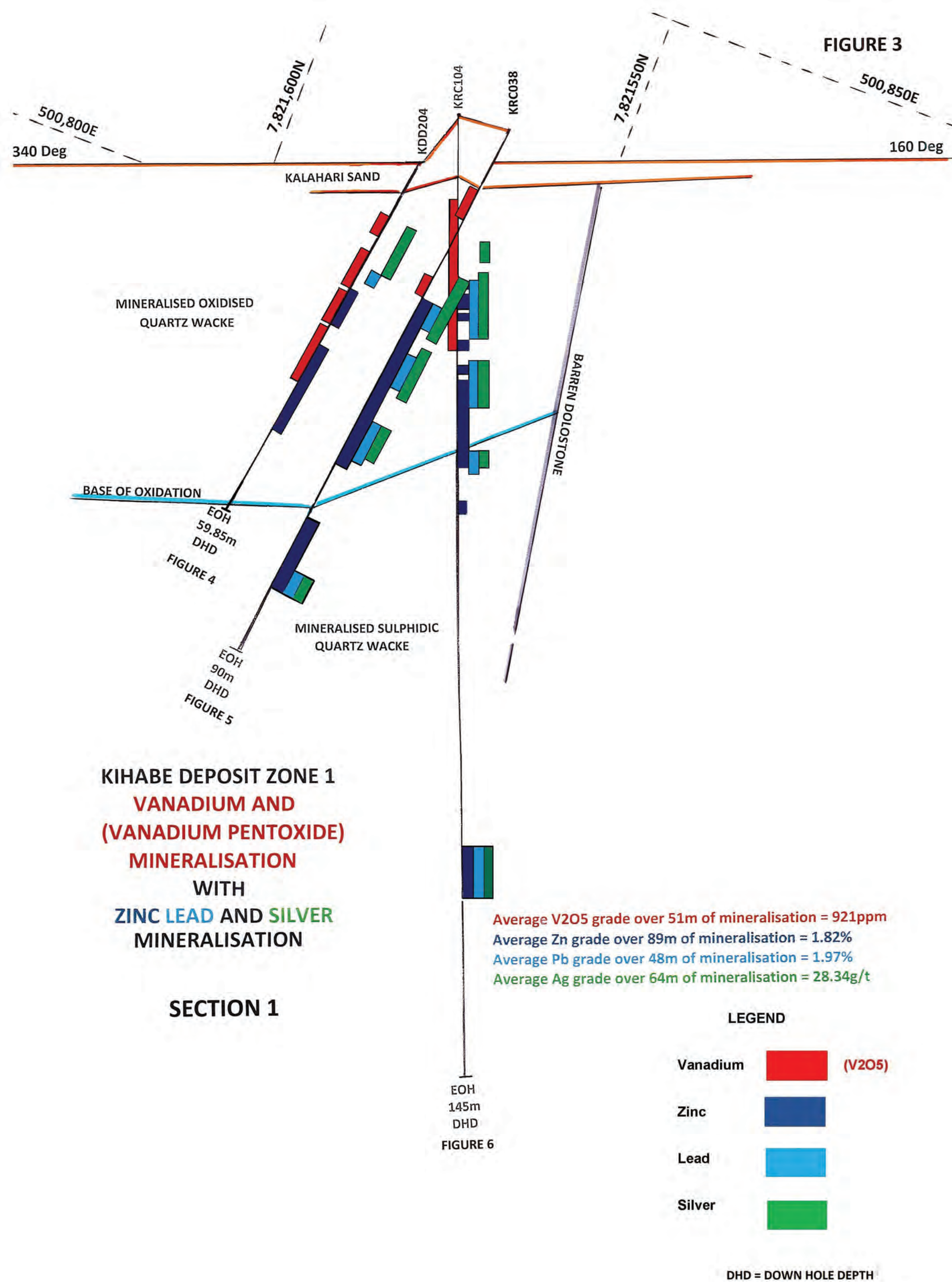




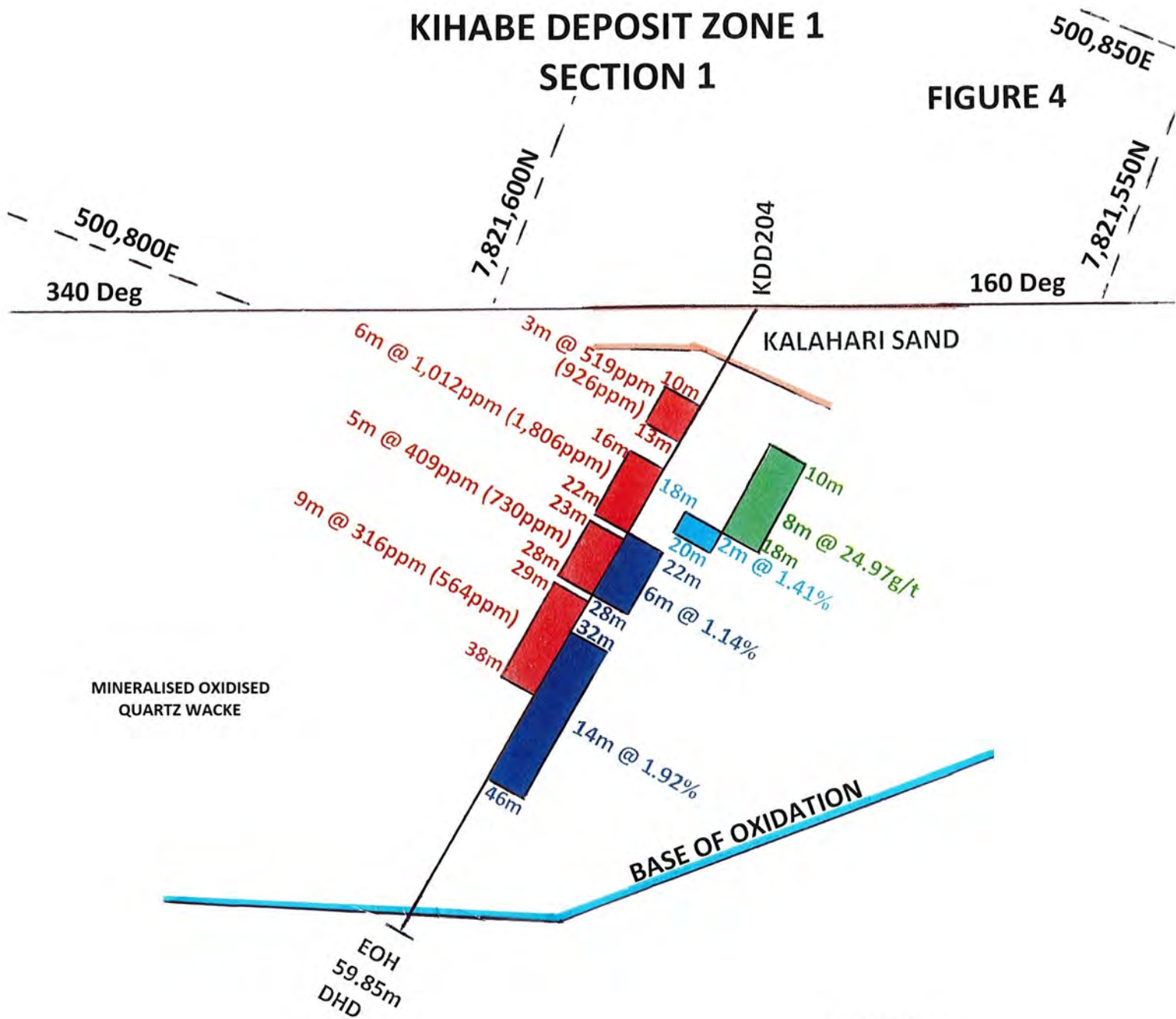
FIGURE 3



# KIHABE DEPOSIT ZONE 1

## SECTION 1

FIGURE 4



### LEGEND

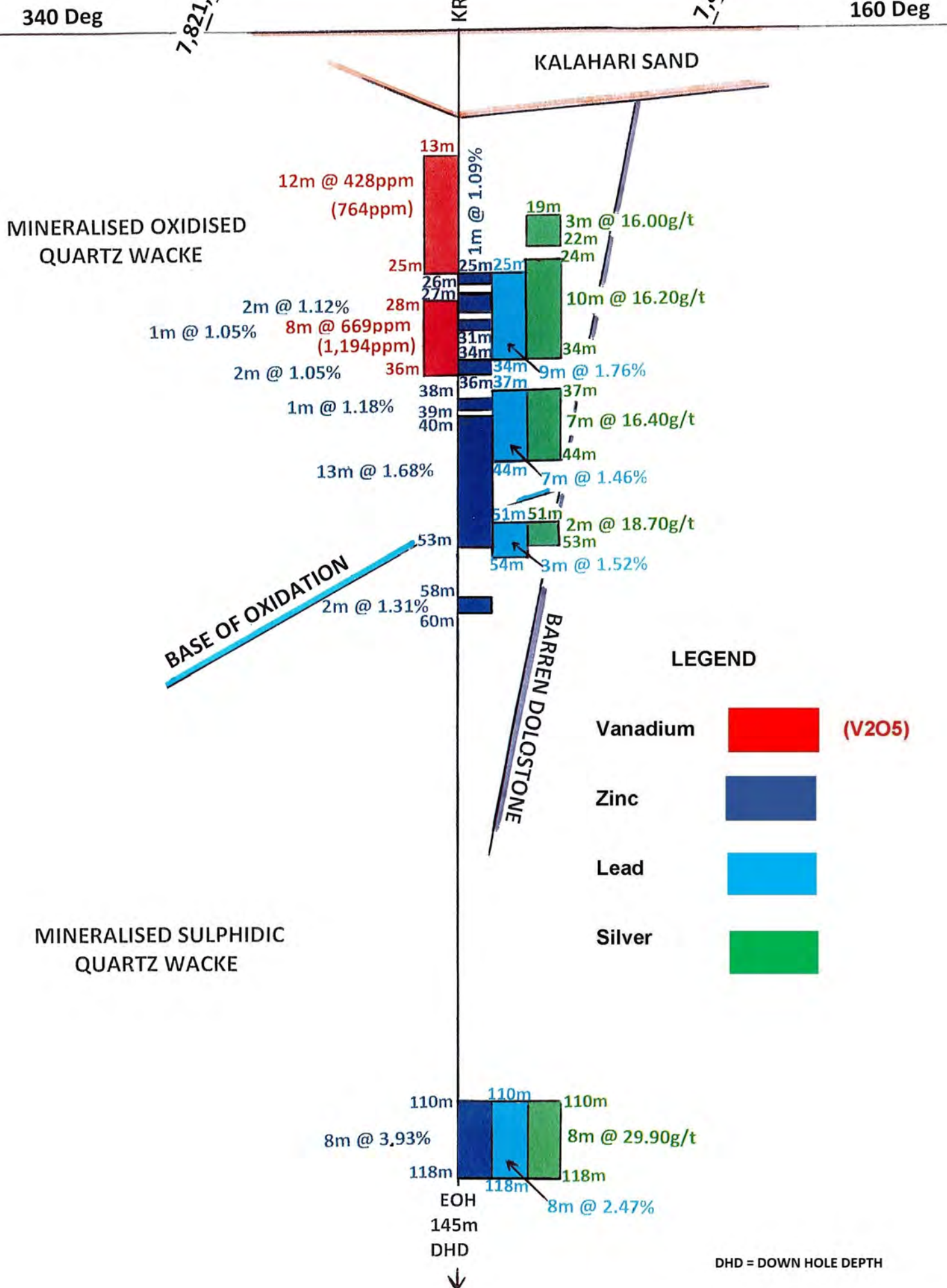
Vanadium	<span style="display: inline-block; width: 20px; height: 15px; background-color: red;"></span>	(V2O5)
Zinc	<span style="display: inline-block; width: 20px; height: 15px; background-color: blue;"></span>	
Lead	<span style="display: inline-block; width: 20px; height: 15px; background-color: cyan;"></span>	
Silver	<span style="display: inline-block; width: 20px; height: 15px; background-color: green;"></span>	

DHD = DOWN HOLE DEPTH



# KIHABE DEPOSIT ZONE 1 - SECTION 1

FIGURE 5



# KIHABE DEPOSIT ZONE 1 SECTION 1

FIGURE 6

500,850E

7,821,600N

KRC038

7821,550N

160 Deg

340 Deg

KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE

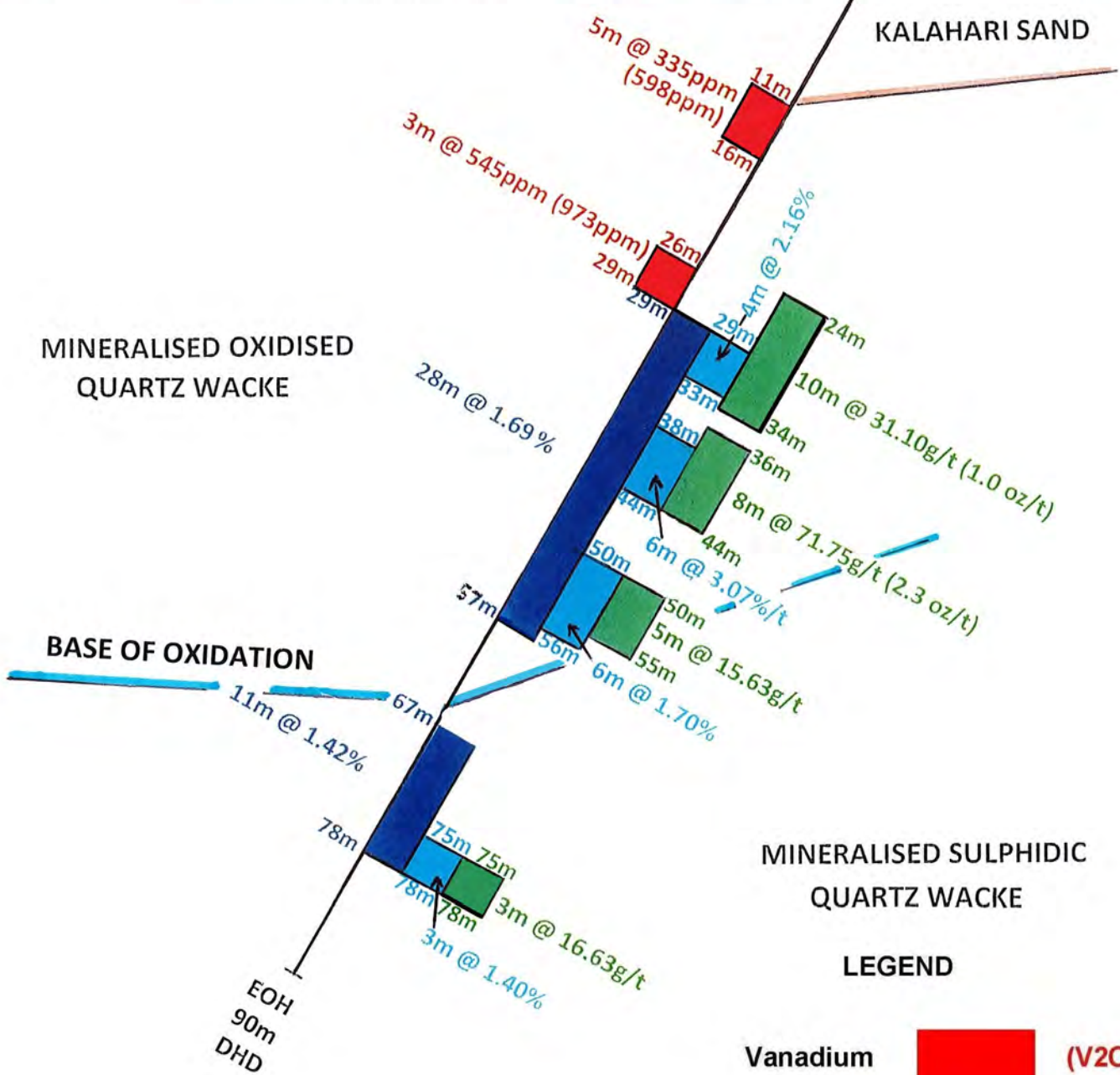
BASE OF OXIDATION

MINERALISED SULPHIDIC  
QUARTZ WACKE

## LEGEND

Vanadium	<div style="display: inline-block; width: 20px; height: 10px; background-color: red;"></div>	(V2O5)
Zinc	<div style="display: inline-block; width: 20px; height: 10px; background-color: blue;"></div>	
Lead	<div style="display: inline-block; width: 20px; height: 10px; background-color: cyan;"></div>	
Silver	<div style="display: inline-block; width: 20px; height: 10px; background-color: green;"></div>	

DHD = DOWN HOLE DEPTH



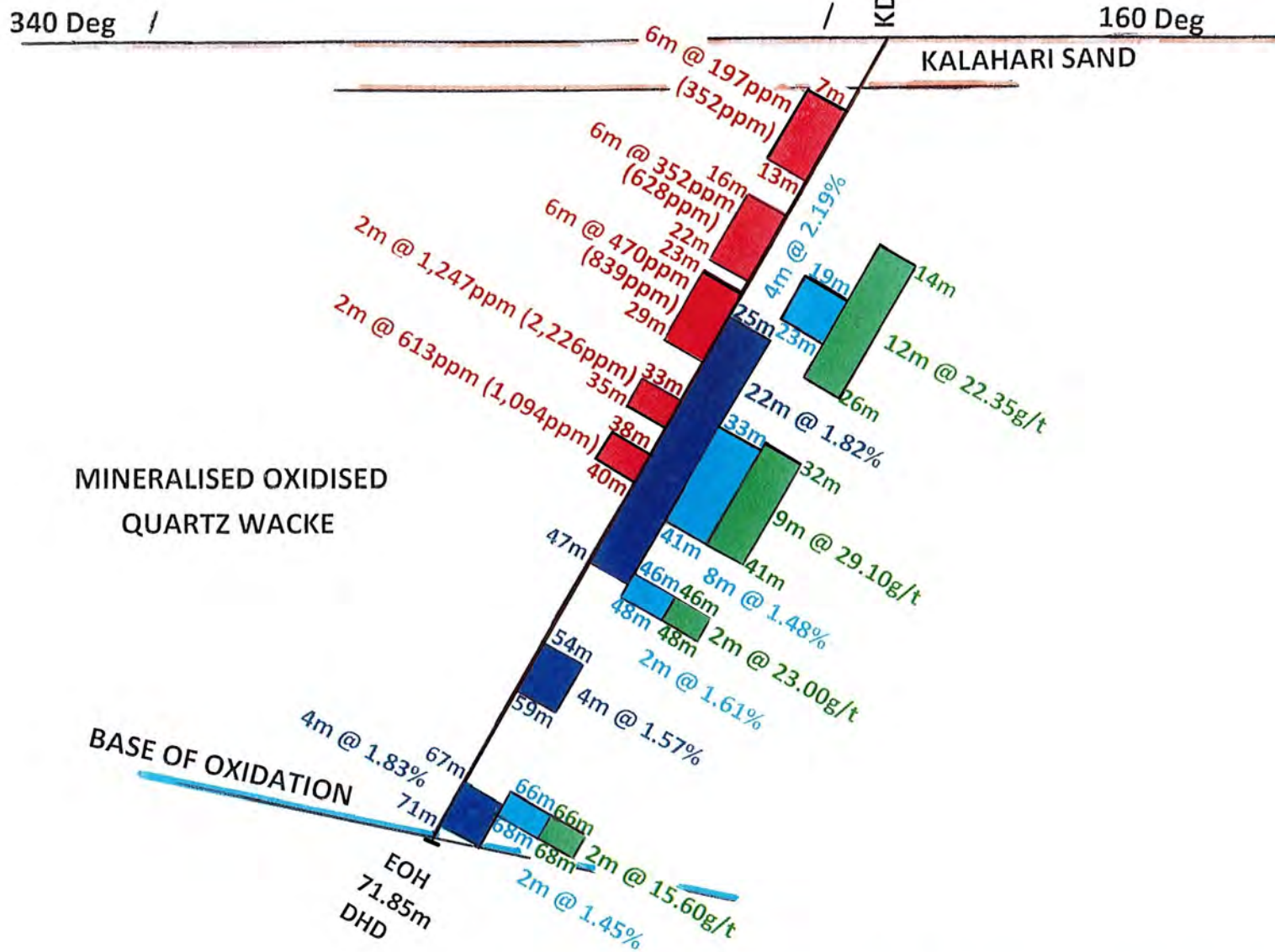


7,821,650N

7,821,600N  
KDD203

500,850NE

FIGURE 7



Average V2O5 grade over 22m of mineralisation = 798ppm  
 Average Zn grade over 30m of mineralisation = 1.79%  
 Average Pb grade over 48m of mineralisation = 1.67%  
 Average Ag grade over 64m of mineralisation = 24.29g/t

# LEGEND

Vanadium	<div style="width: 20px; height: 15px; background-color: red;"></div>	(V2O5)
Zinc	<div style="width: 20px; height: 15px; background-color: blue;"></div>	
Lead	<div style="width: 20px; height: 15px; background-color: cyan;"></div>	
Silver	<div style="width: 20px; height: 15px; background-color: green;"></div>	

KIHABE DEPOSIT ZONE 1

**VANADIUM AND**

**(VANADIUM PENTOXIDE)**

**MINERALISATION**

**WITH**

**ZINC LEAD AND SILVER**

**MINERALISATION**

## SECTION 2

DHD = DOWN HOLE DEPTH

160 Deg



MINERALISED OXIDISED  
QUARTZ WACKE

## MINERALISED SULPHIDIC QUARTZ WACKE

# KIHABE DEPOSIT ZONE 1 VANADIUM AND (VANADIUM PENTOXIDE) MINERALISATION WITH ZINC LEAD AND SILVER MINERALISATION

## LEGEND

Vanadium (V2O5)

## Zinc

## Lead

## Silver

DHD = DOWN HOLE DEPTH

Average V2O5 grade over 12m of mineralisation = 492ppm

Average Zn grade over 29m of mineralisation = 3.74%

Average Pb grade over 14m of mineralisation = 2.46%

Average Ag grade over 21.80m of mineralisation = 56.04g/t (1.80oz/t)

## SECTION 3





FIGURE 10

340 Deg

500,900E

160 Deg

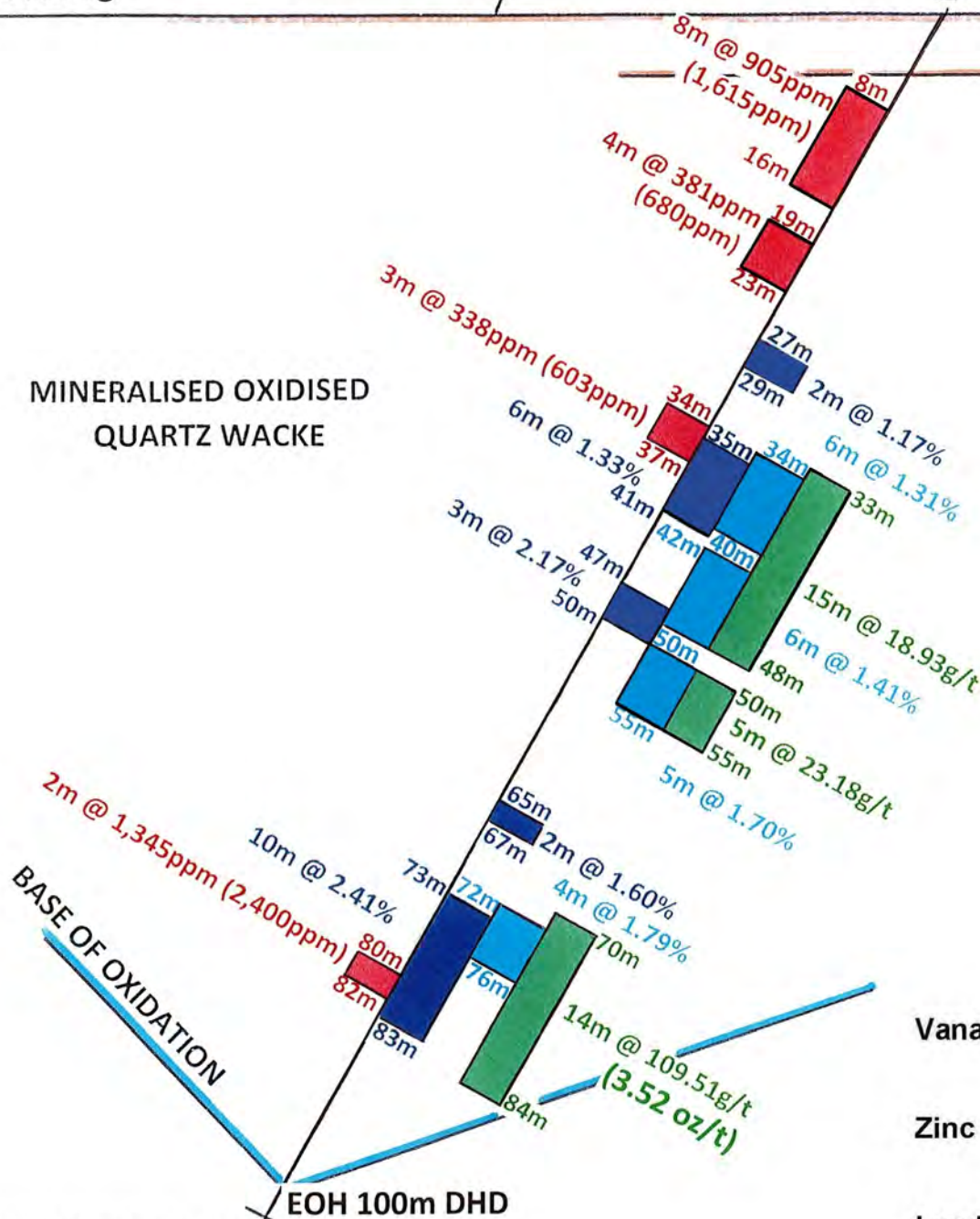
7,821,650N

7,821,600N

KDD201

KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE



LEGEND

Vanadium	<span style="display:inline-block; width:20px; height:15px; background-color:red;"></span>	(V2O5)
Zinc	<span style="display:inline-block; width:20px; height:15px; background-color:blue;"></span>	
Lead	<span style="display:inline-block; width:20px; height:15px; background-color:cyan;"></span>	
Silver	<span style="display:inline-block; width:20px; height:15px; background-color:green;"></span>	

DHD = DOWN HOLE DEPTH

KIHABE DEPOSIT ZONE 1  
**VANADIUM AND  
(VANADIUM PENTOXIDE)  
MINERALISATION  
WITH  
ZINC LEAD AND SILVER  
MINERALISATION**

SECTION 4

Average V2O5 grade over 17m of mineralisation = 1,309ppm  
Average Zn grade over 23m of mineralisation = 1.92%  
Average Pb grade over 21m of mineralisation = 1.52%  
Average Ag grade over 9m of mineralisation = 53.85g/t (1.83oz/t)

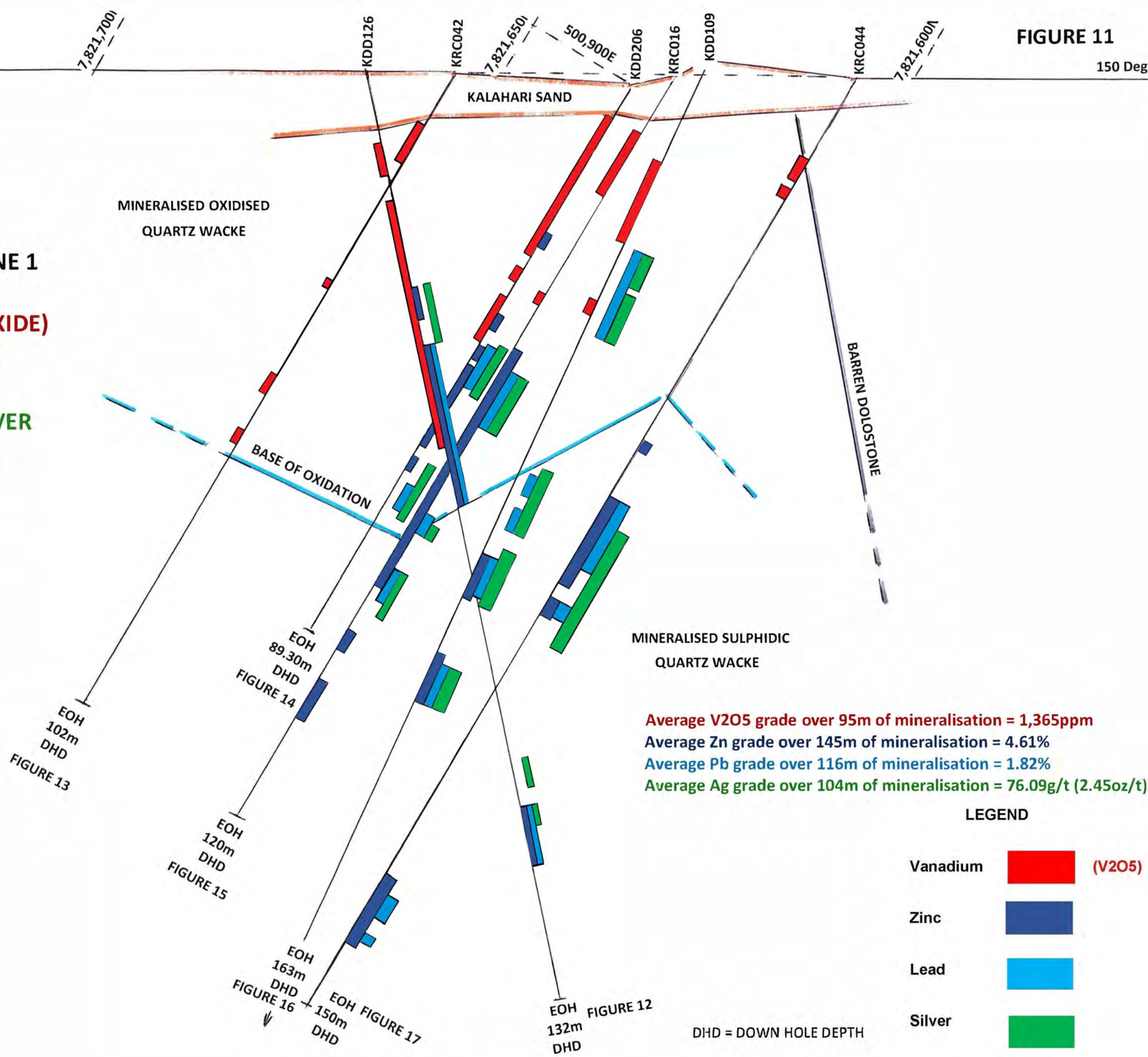


FIGURE 11

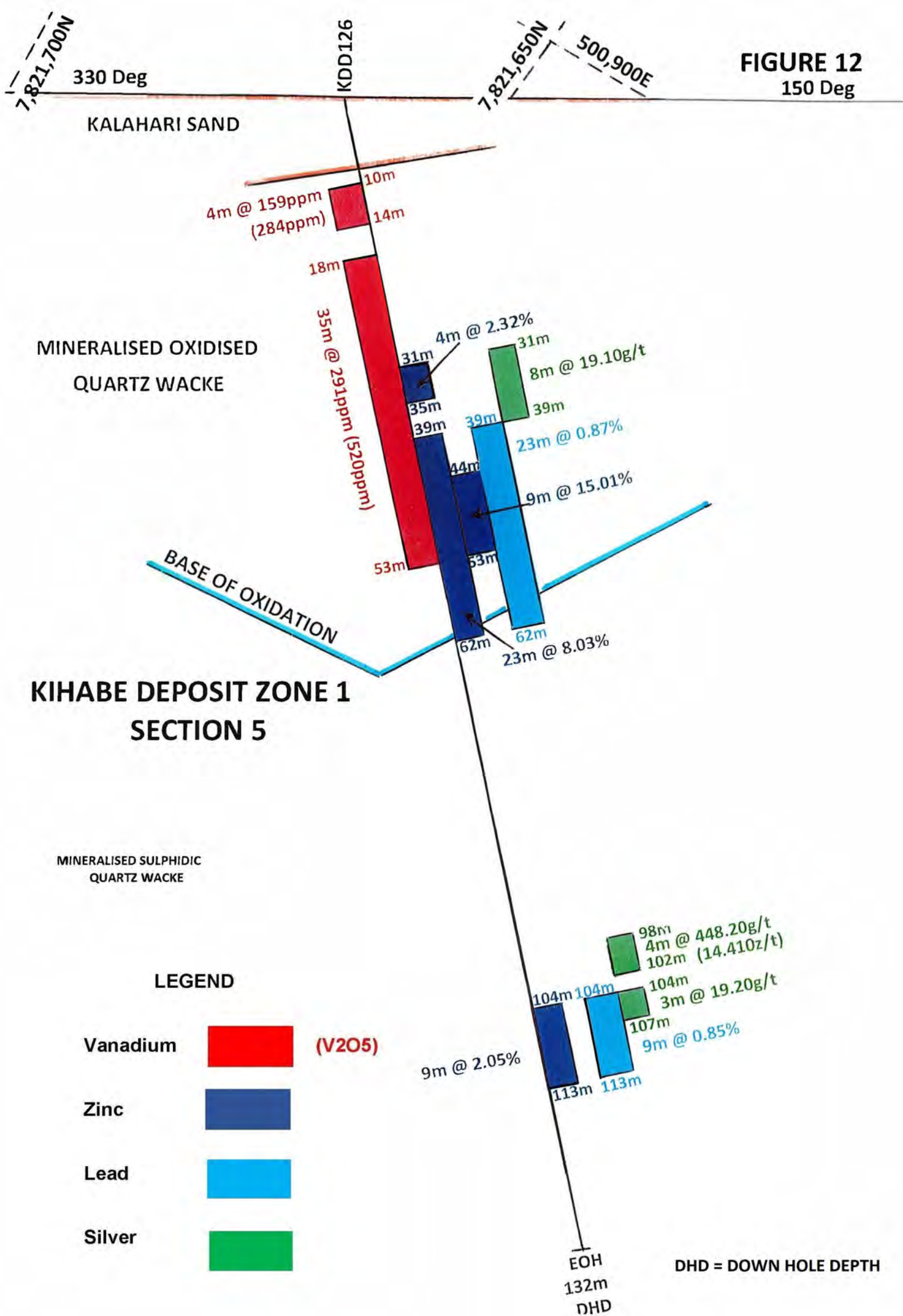
150 Deg

**KIHABE DEPOSIT ZONE 1**  
**VANADIUM AND**  
**(VANADIUM PENTOXIDE)**  
**MINERALISATION**  
**WITH**  
**ZINC LEAD AND SILVER**  
**MINERALISATION**

**SECTION 5**



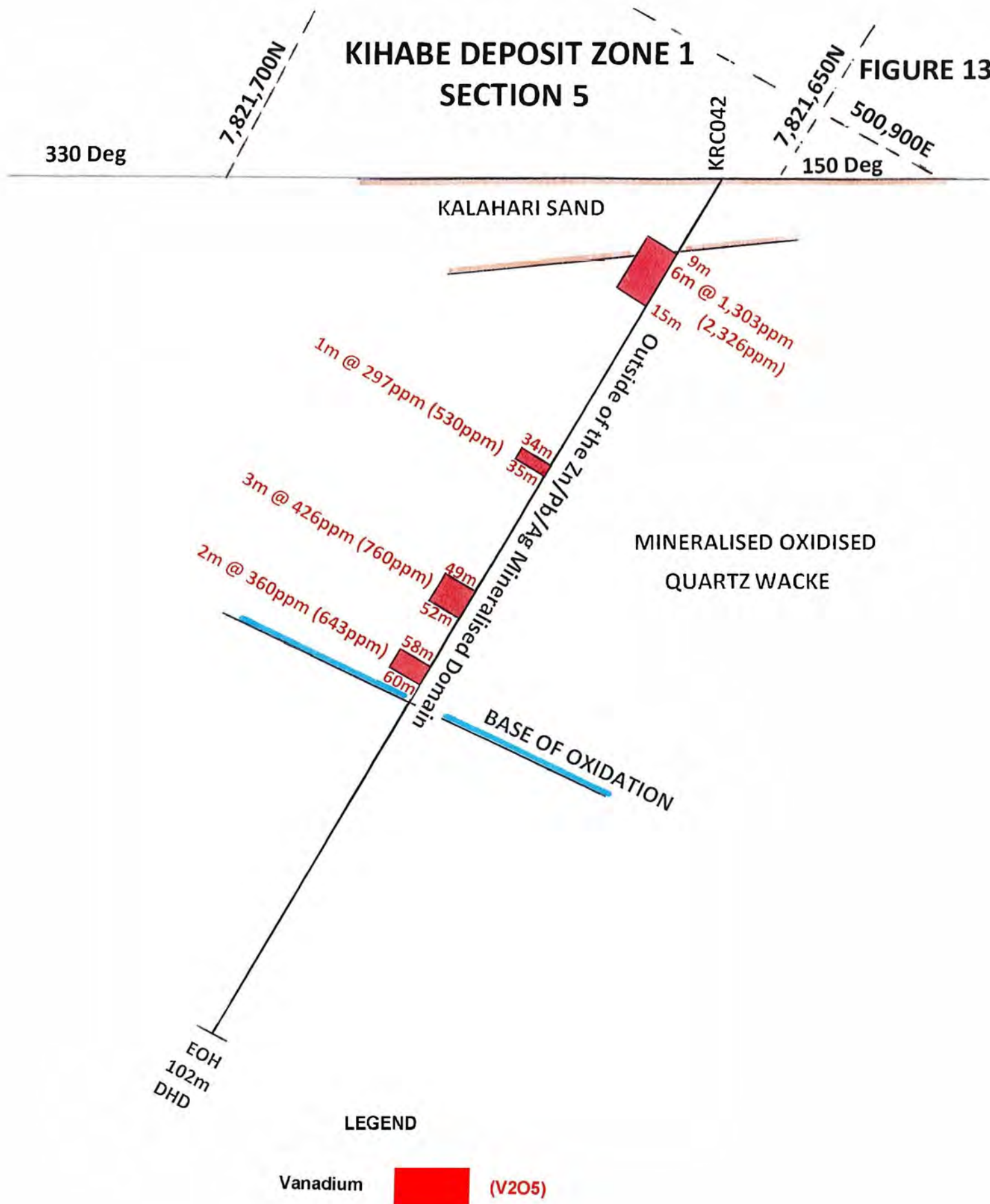
**FIGURE 12**  
150 Deg





# KIHABE DEPOSIT ZONE 1 SECTION 5

FIGURE 13



DHD = DRILL HOLE DEPTH

# KIHABE DEPOSIT ZONE 1 SECTION 5

FIGURE 14

330 Deg

150 Deg

7,821,650N

500,900E

KDD206

KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE

BASE OF OXIDATION

EOH  
89.30m  
DHD

MINERALISED SULPHIDIC  
QUARTZ WACKE

LEGEND

Vanadium



(V2O5)

Zinc



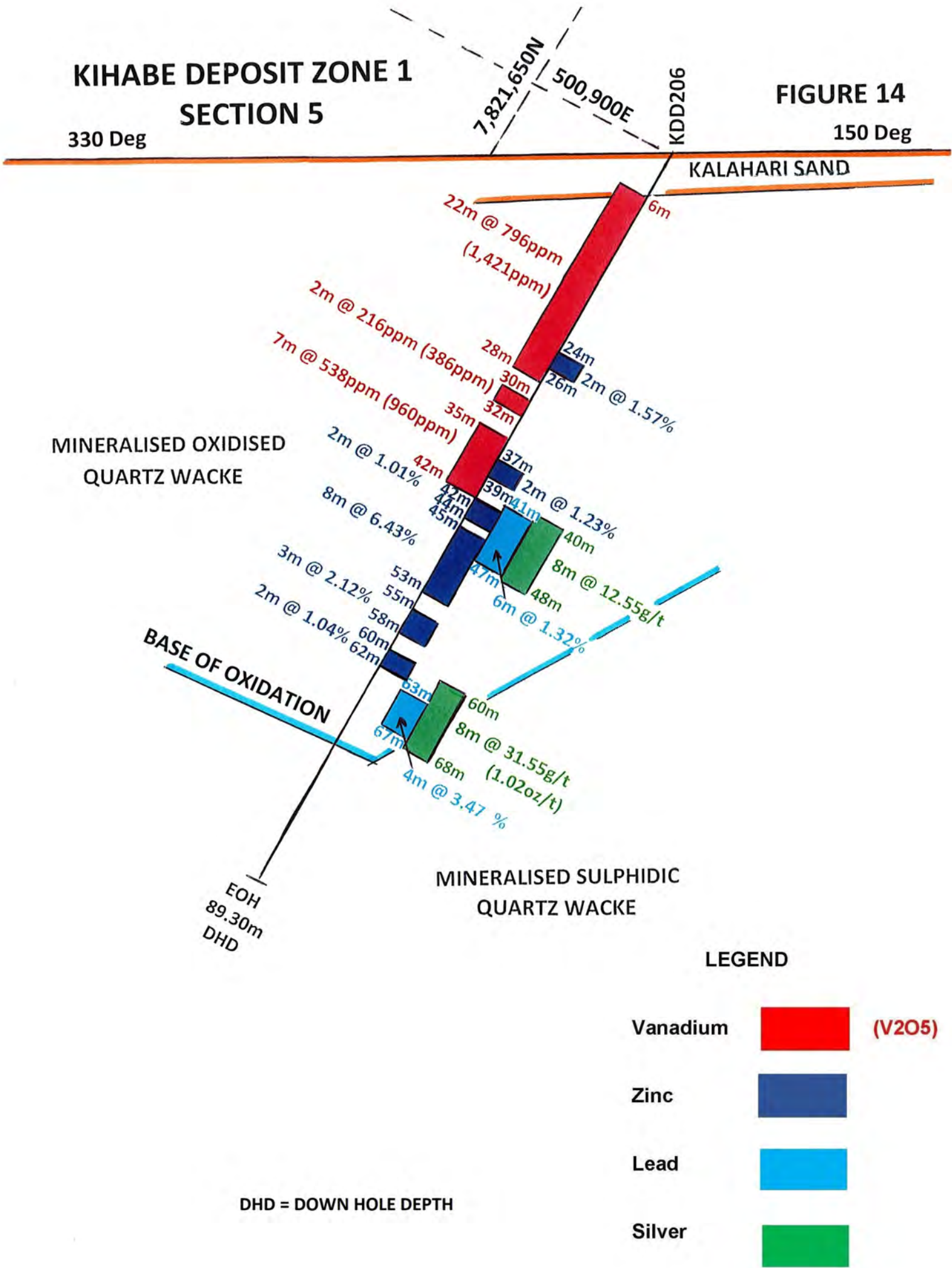
Lead



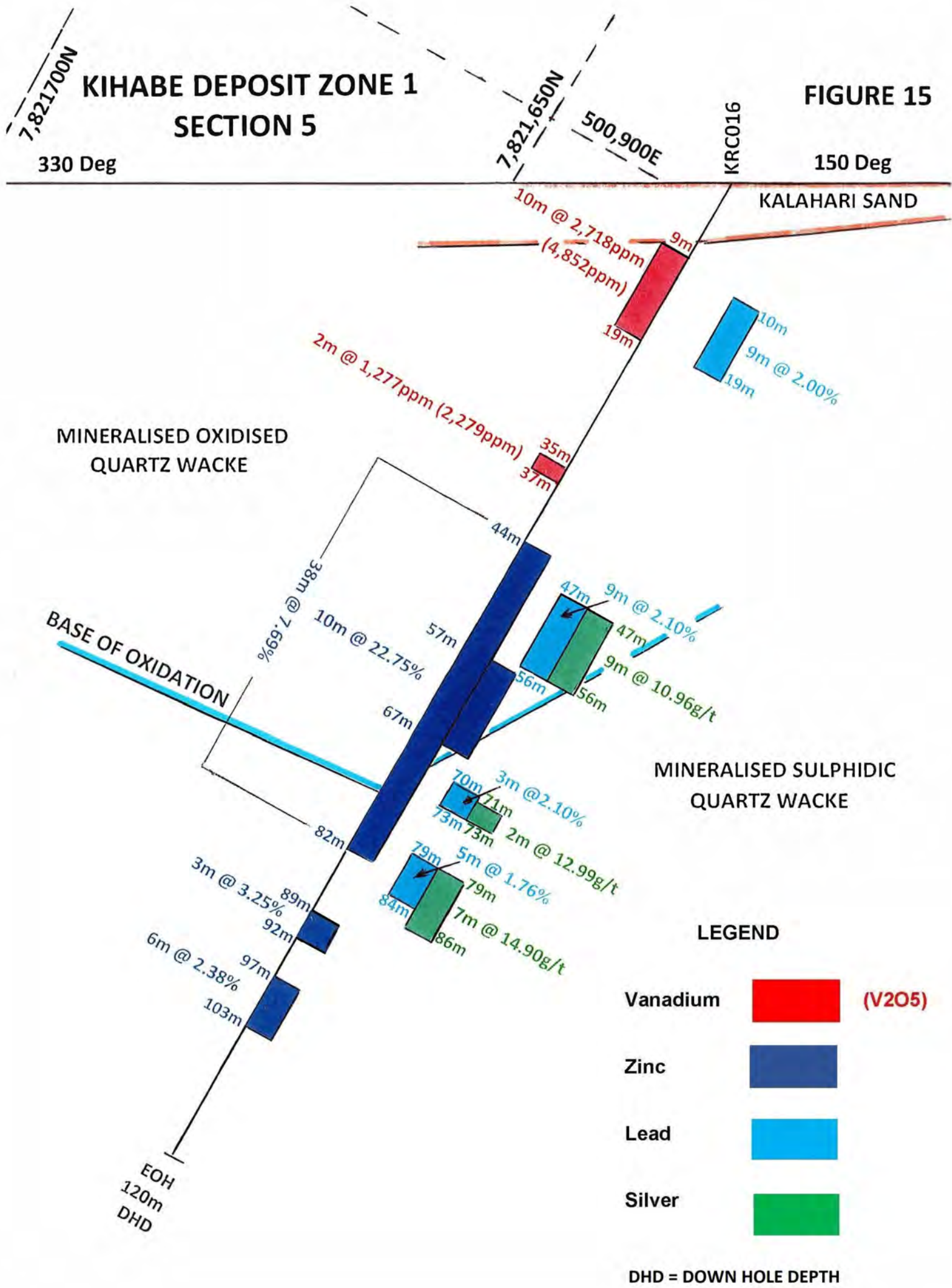
Silver



DHD = DOWN HOLE DEPTH







# KIHABE DEPOSIT ZONE 1 SECTION 5

330 Deg

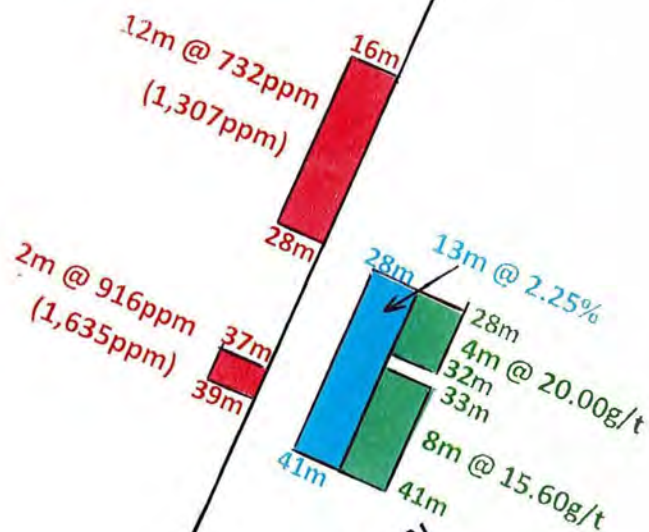
7,821,650N  
500,900E

FIGURE 16

150 Deg

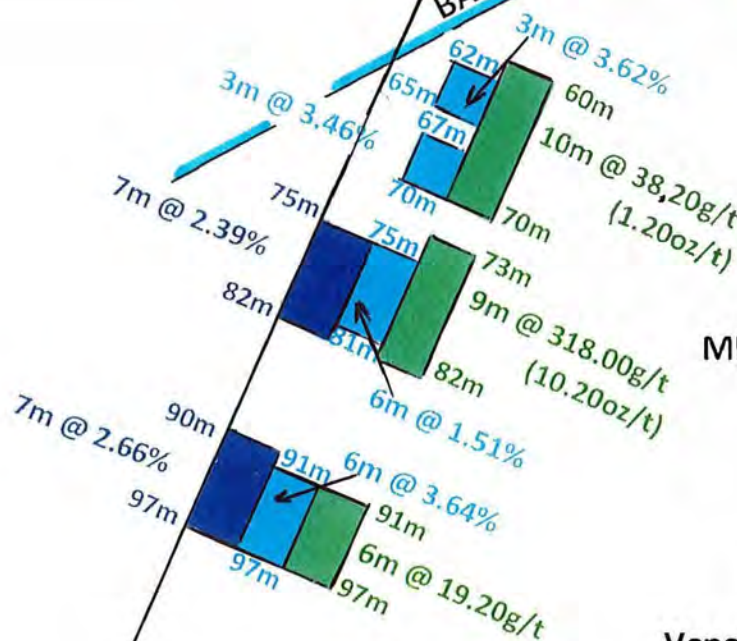
KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE



BASE OF OXIDATION

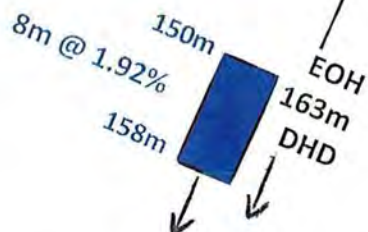
MINERALISED SULPHIDIC  
QUARTZ WACKE



## LEGEND

Vanadium	<span style="color: red;">■</span>	(V2O5)
Zinc	<span style="color: blue;">■</span>	
Lead	<span style="color: cyan;">■</span>	
Silver	<span style="color: green;">■</span>	

DHD = DOWN HOLE DEPTH





# KIHABE DEPOSIT ZONE 1 SECTION 5

FIGURE 17

330 Deg

7,821,650N  
500,900E

KRC044

7,821,600N  
150 Deg

KALAHARI SAND

3m @ 389ppm (694ppm)  
1m @ 366ppm (653ppm)

MINERALISED OXIDISED  
QUARTZ WACKE

BAREN DOLOSTONE

BASE OF OXIDATION

MINERALISED SULPHIDIC  
QUARTZ WACKE

LEGEND

Vanadium ■ (V2O5)

Zinc ■

Lead ■

Silver ■

DHD = DOWN HOLE DEPTH

11m @ 2.24%  
128m  
131m  
137m  
138m  
139m  
EOH  
150m  
DHD  
3m @ 1.84  
1m @ 1.34%

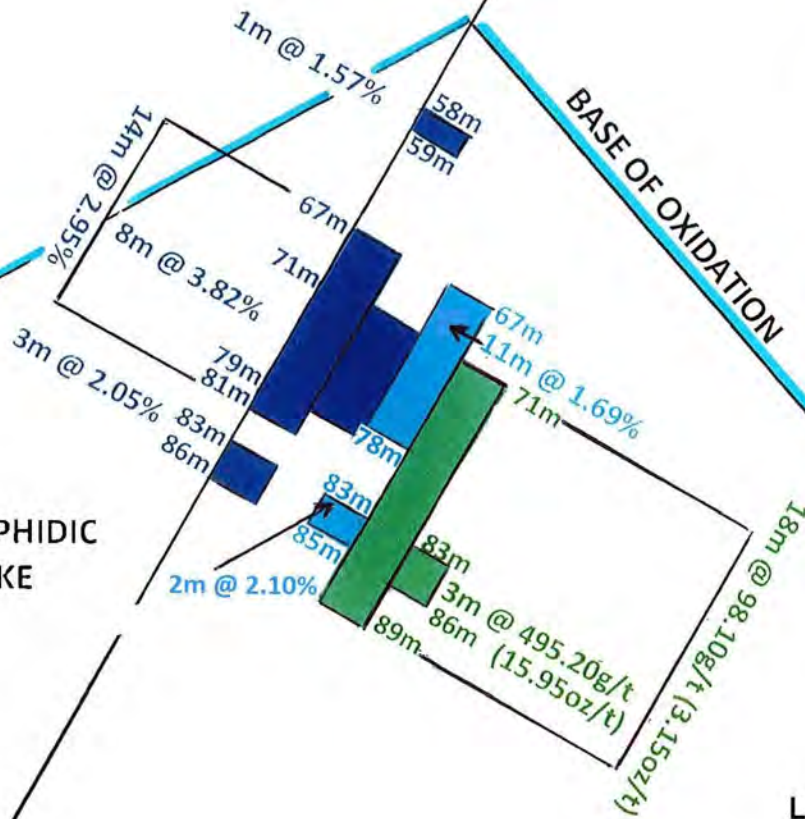
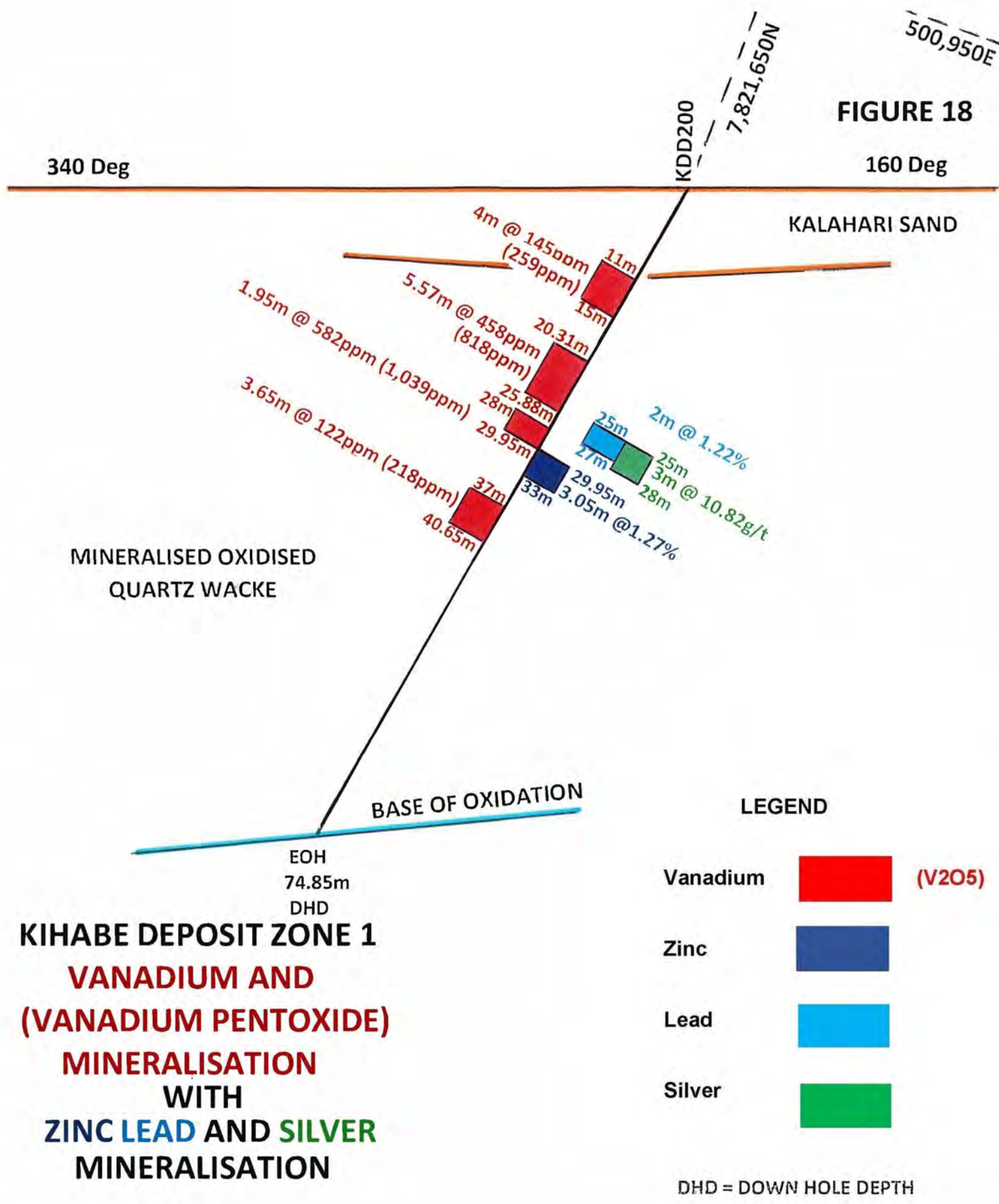


FIGURE 18



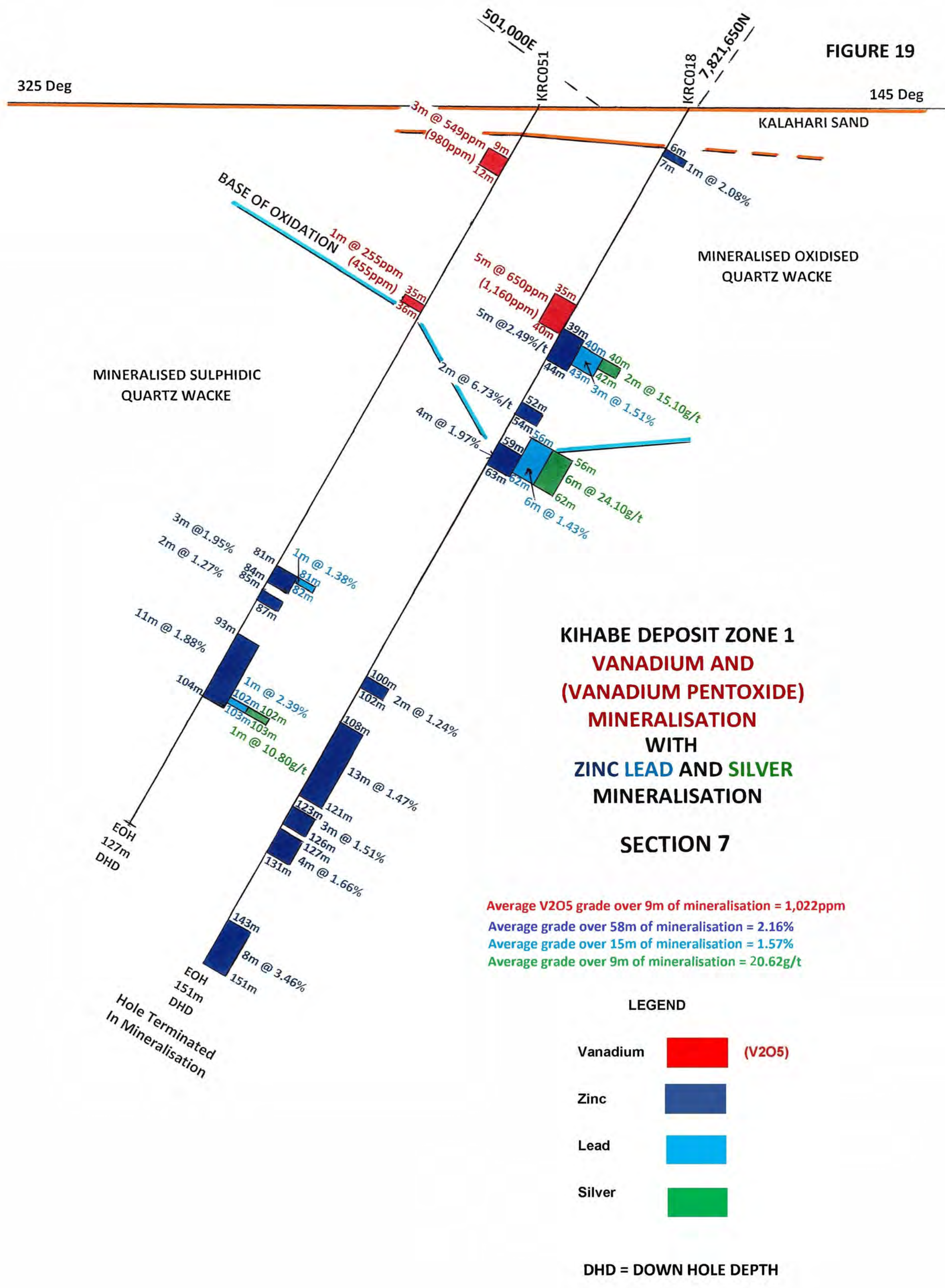
**KIHABE DEPOSIT ZONE 1**  
**VANADIUM AND (VANADIUM PENTOXIDE)**  
**MINERALISATION**  
**WITH**  
**ZINC LEAD AND SILVER**  
**MINERALISATION**

**SECTION 6**

Average V2O5 grade over 15.17m of mineralisation = 554.65ppm  
 Average Zn grade over 3.05m of mineralisation = 1.27%  
 Average Pb grade over 2m of mineralisation = 1.22%  
 Average Ag grade over 3m of mineralisation = 10.82g/t



FIGURE 19



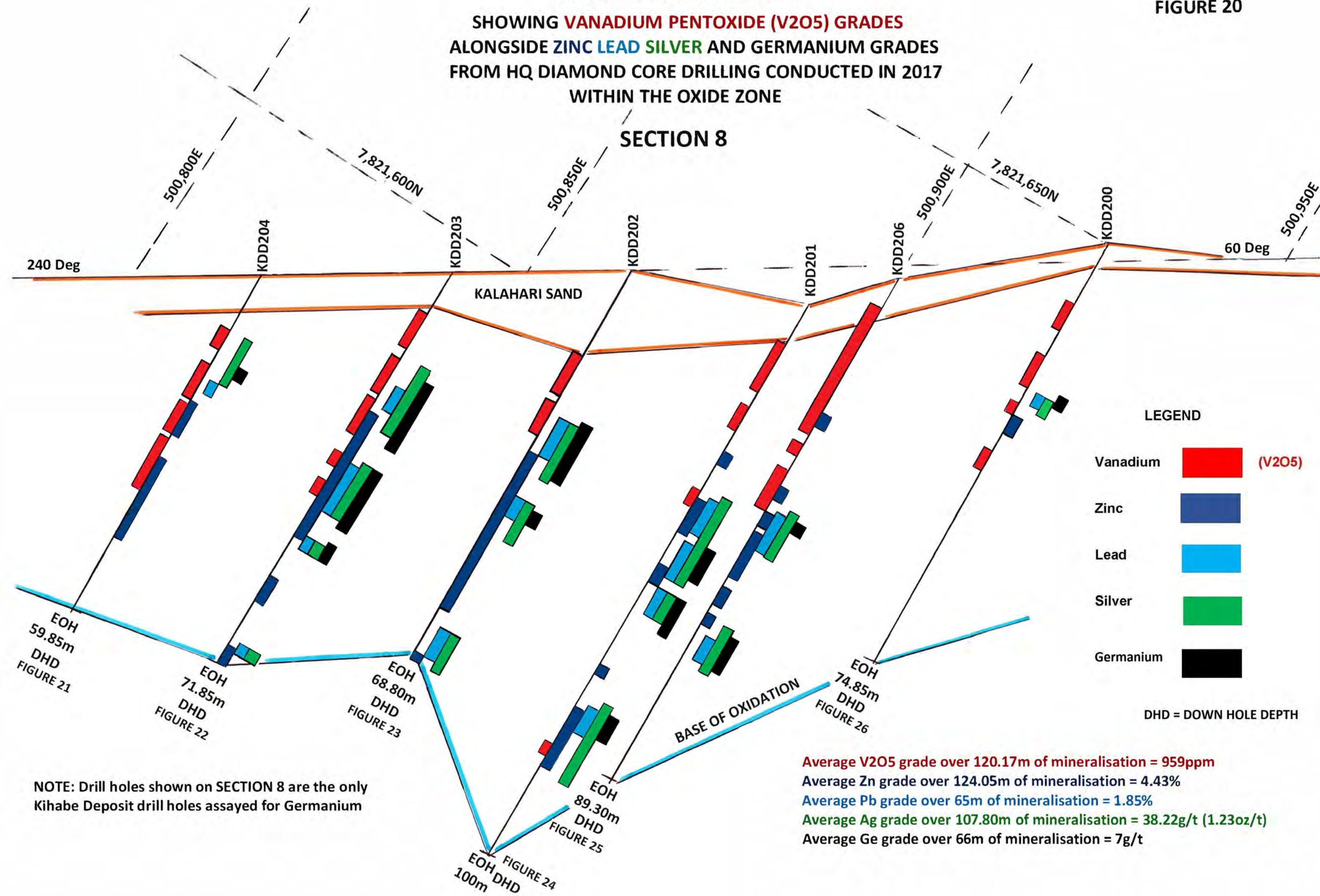


# KIHABE DEPOSIT ZONE 1

FIGURE 20

SHOWING **VANADIUM PENTOXIDE (V2O5) GRADES**  
ALONGSIDE **ZINC LEAD SILVER** AND GERMANIUM GRADES  
FROM HQ DIAMOND CORE DRILLING CONDUCTED IN 2017  
WITHIN THE OXIDE ZONE

## SECTION 8

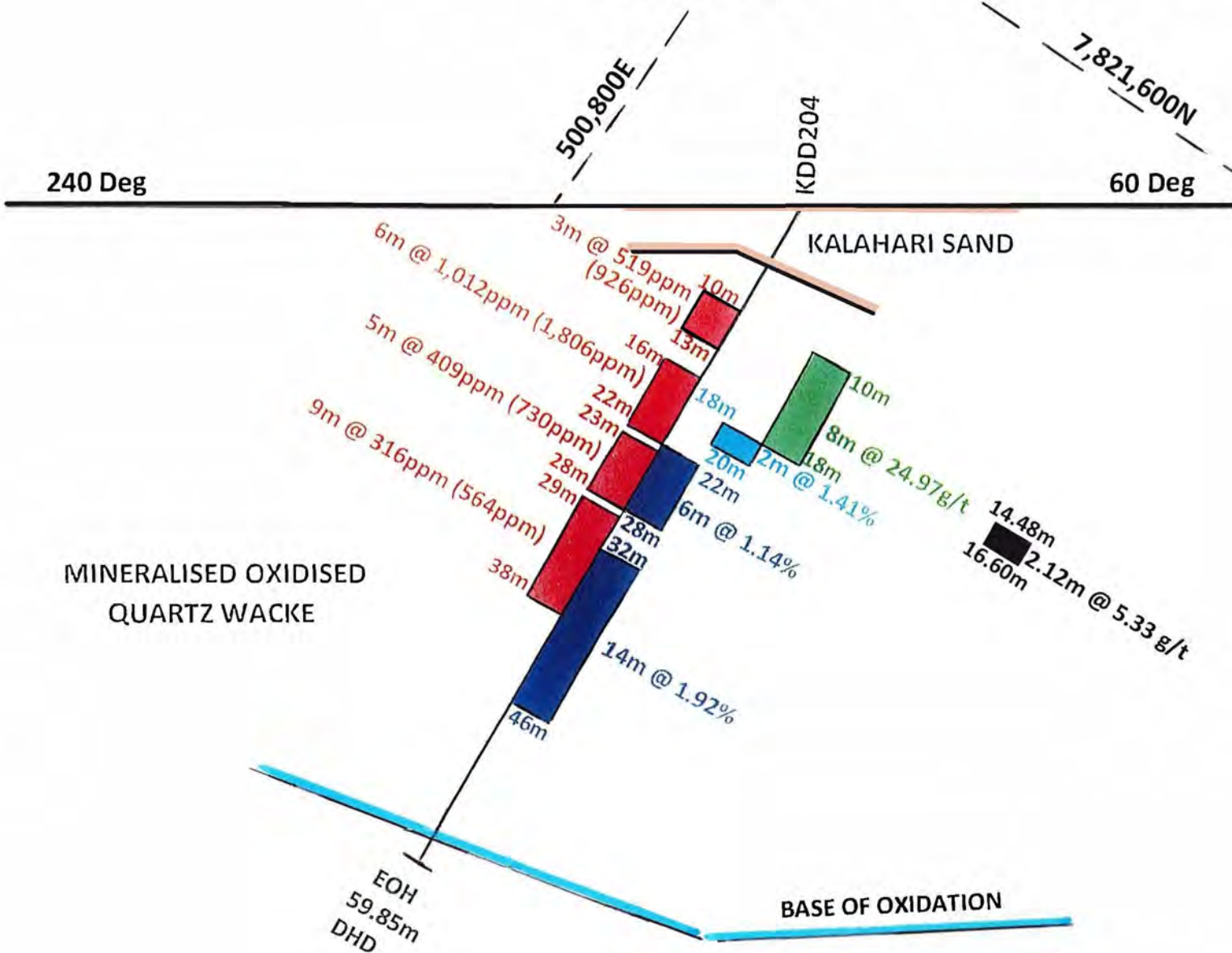


NOTE: Drill holes shown on SECTION 8 are the only Kihabe Deposit drill holes assayed for Germanium



# KIHABE DEPOSIT ZONE 1 SECTION 8

FIGURE 21



## LEGEND

Vanadium	<span style="display: inline-block; width: 20px; height: 15px; background-color: red;"></span>	(V2O5)
Zinc	<span style="display: inline-block; width: 20px; height: 15px; background-color: blue;"></span>	
Lead	<span style="display: inline-block; width: 20px; height: 15px; background-color: cyan;"></span>	
Silver	<span style="display: inline-block; width: 20px; height: 15px; background-color: green;"></span>	
Germanium	<span style="display: inline-block; width: 20px; height: 15px; background-color: black;"></span>	

DHD = DOWN HOLE DEPTH

FIGURE 22

240 Deg

500,800E

7,821,600N

KDD203

500,850E

60 Deg

KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE

BASE OF OXIDATION

EOH  
71.85m  
DHD

LEGEND

Vanadium	<div style="display: inline-block; width: 20px; height: 10px; background-color: red;"></div>	(V2O5)
Zinc	<div style="display: inline-block; width: 20px; height: 10px; background-color: blue;"></div>	
Lead	<div style="display: inline-block; width: 20px; height: 10px; background-color: cyan;"></div>	
Silver	<div style="display: inline-block; width: 20px; height: 10px; background-color: green;"></div>	
Germanium	<div style="display: inline-block; width: 20px; height: 10px; background-color: black;"></div>	

DHD = DOWN HOLE DEPTH

## KIHABE DEPOSIT ZONE 1 SECTION 8

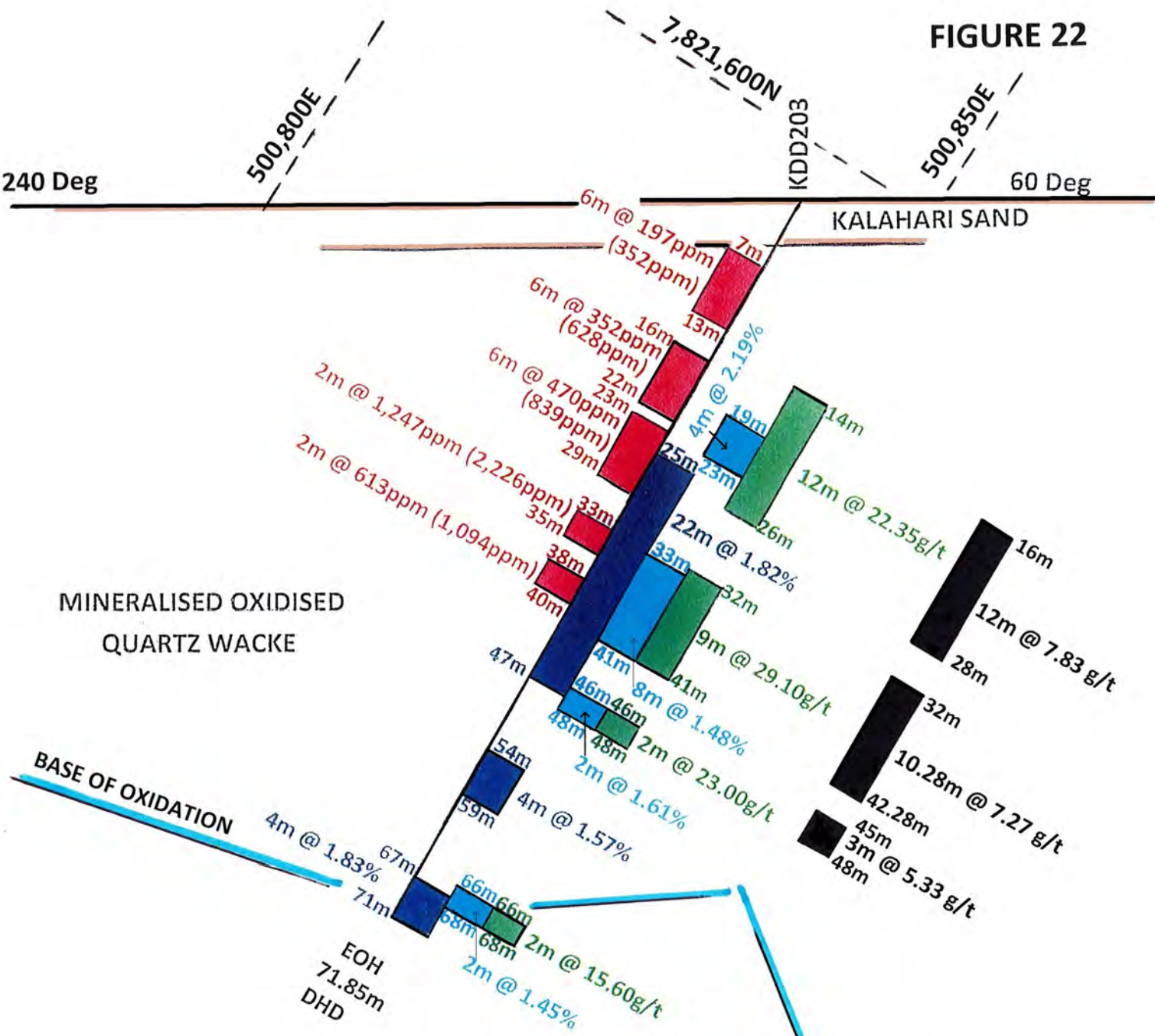
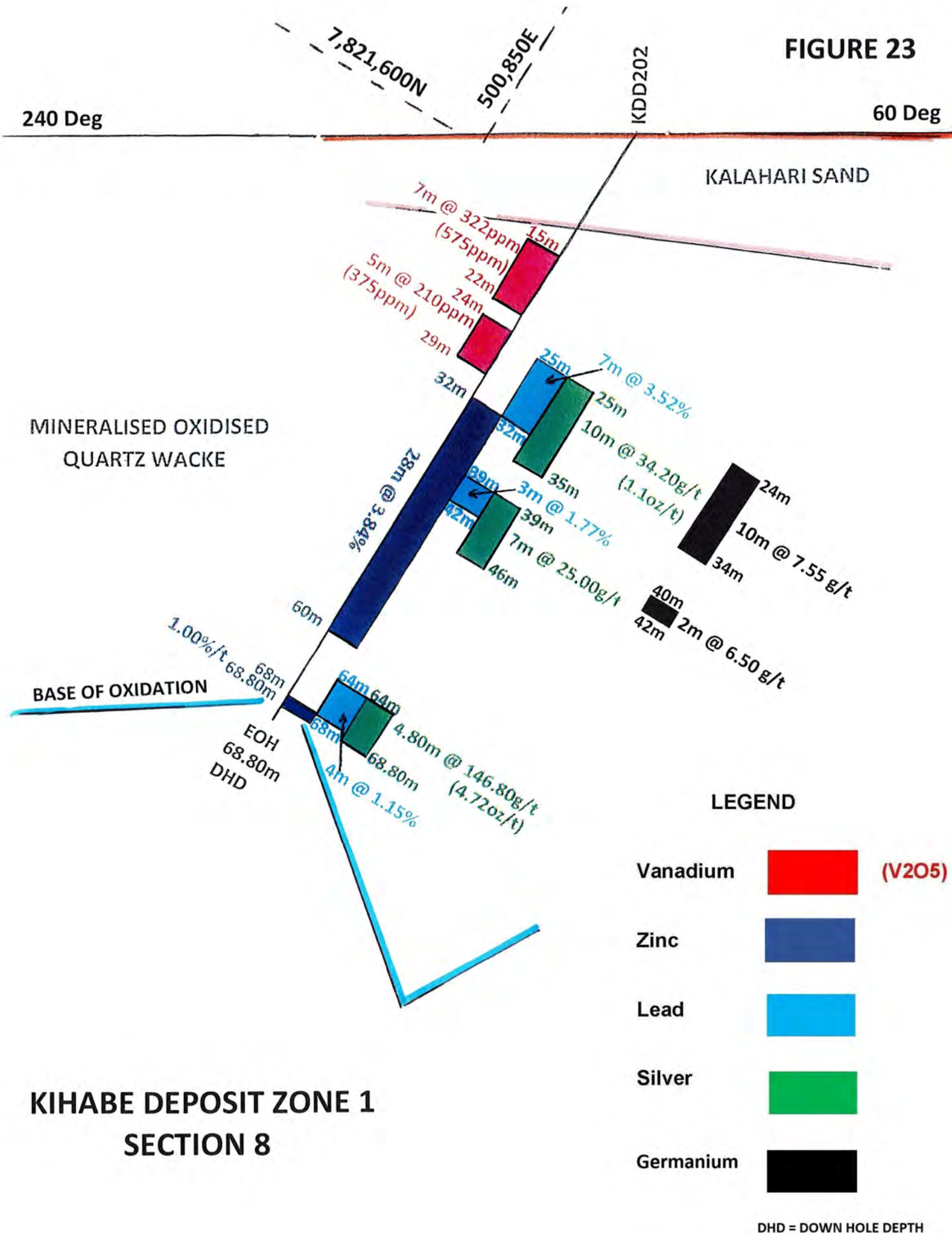
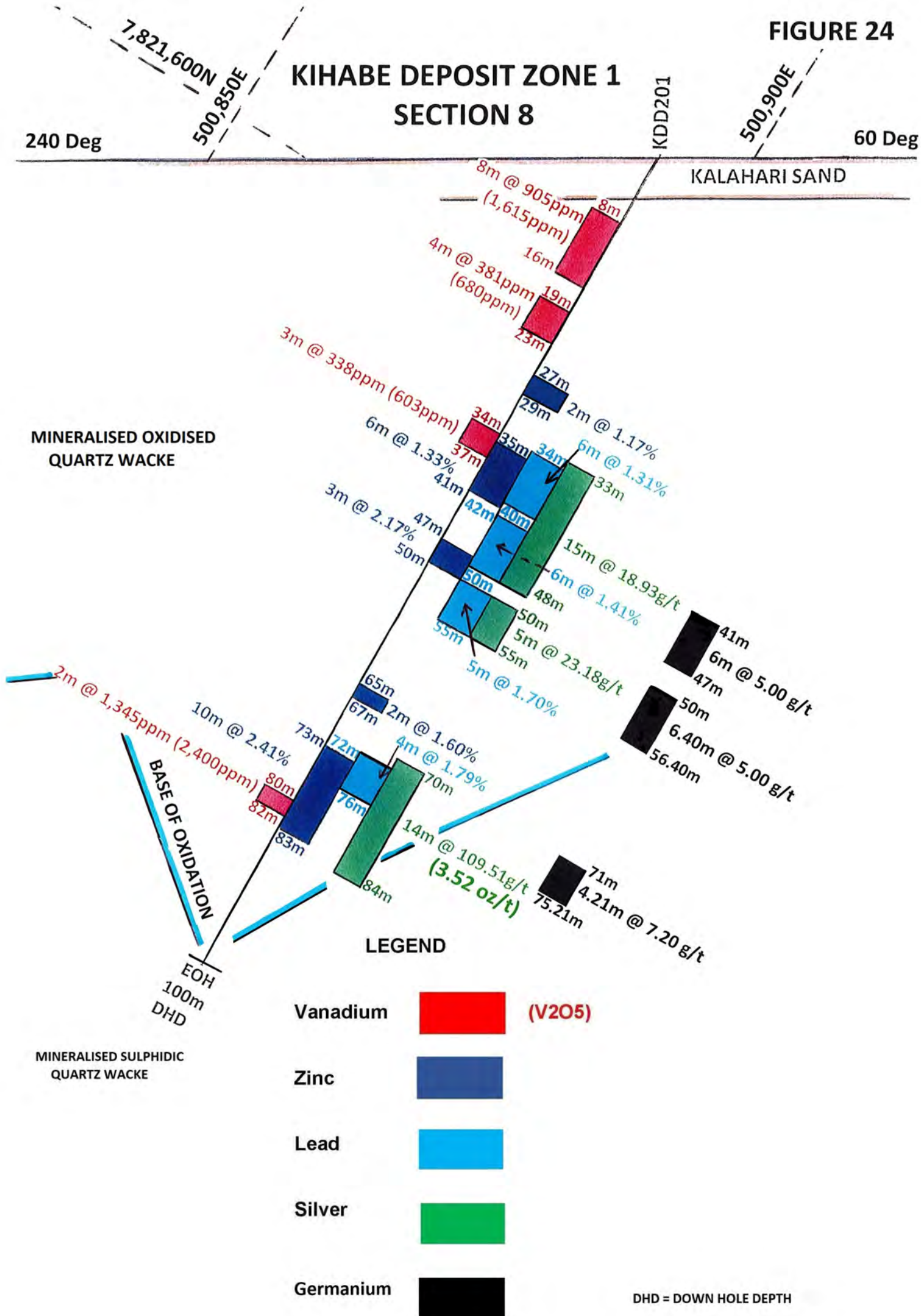




FIGURE 23



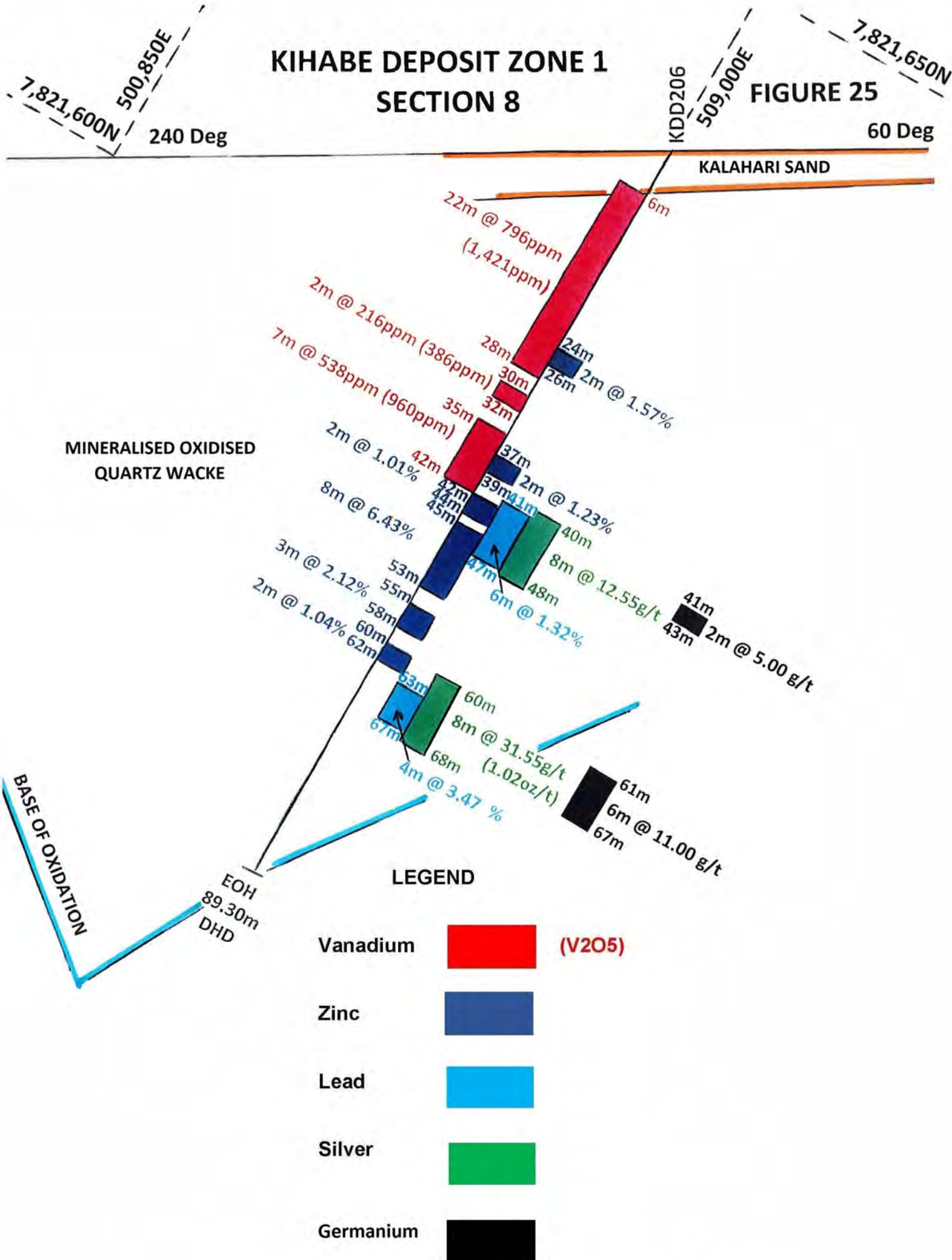
# KIHABE DEPOSIT ZONE 1 SECTION 8





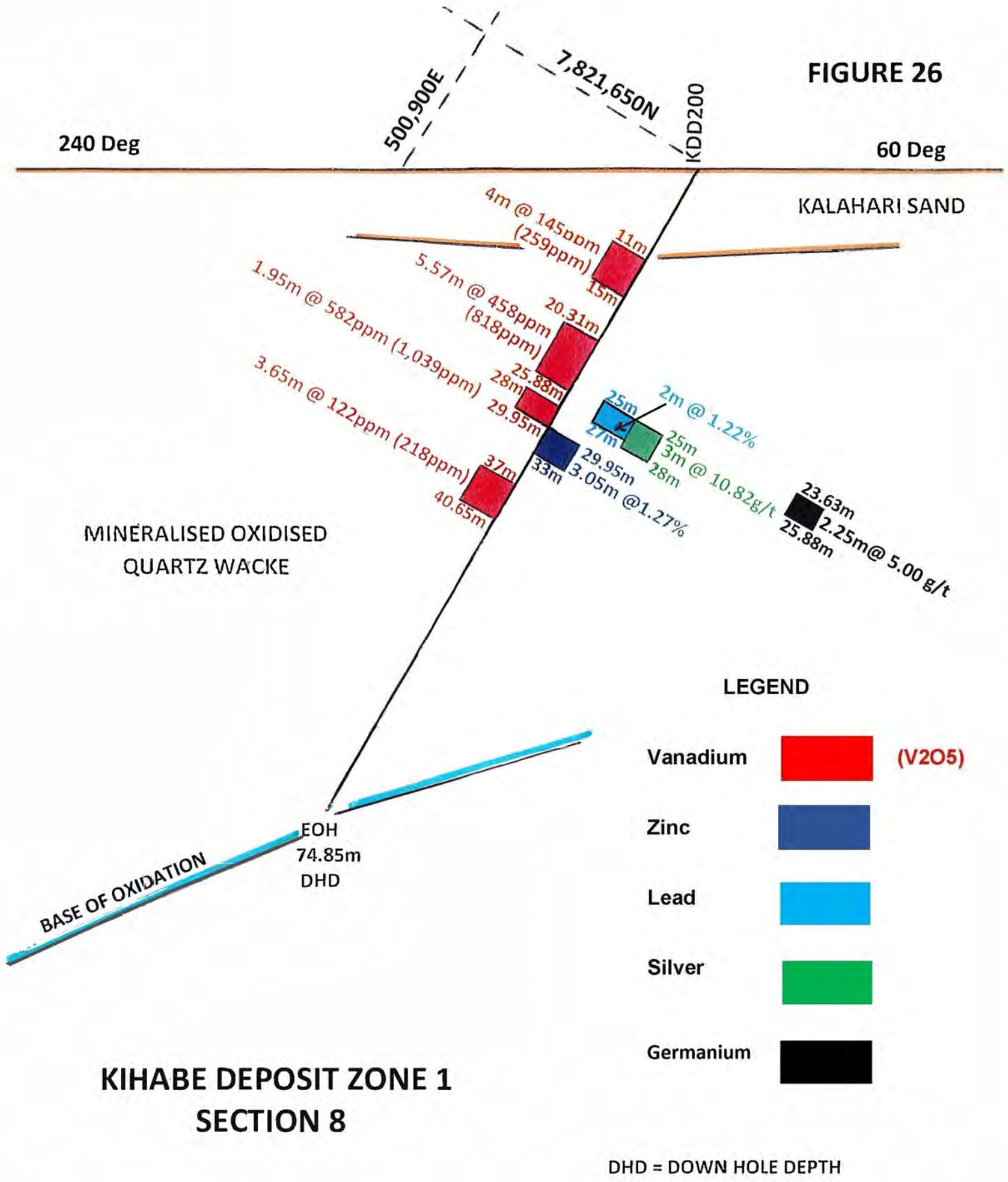
# KIHABE DEPOSIT ZONE 1 SECTION 8

FIGURE 25



DHD = DOWN HOLE DEPTH

FIGURE 26





# KIHABE DEPOSIT V2O5 MINERALISATION TO BASE OF OXIDATION (Max Depth 66m)

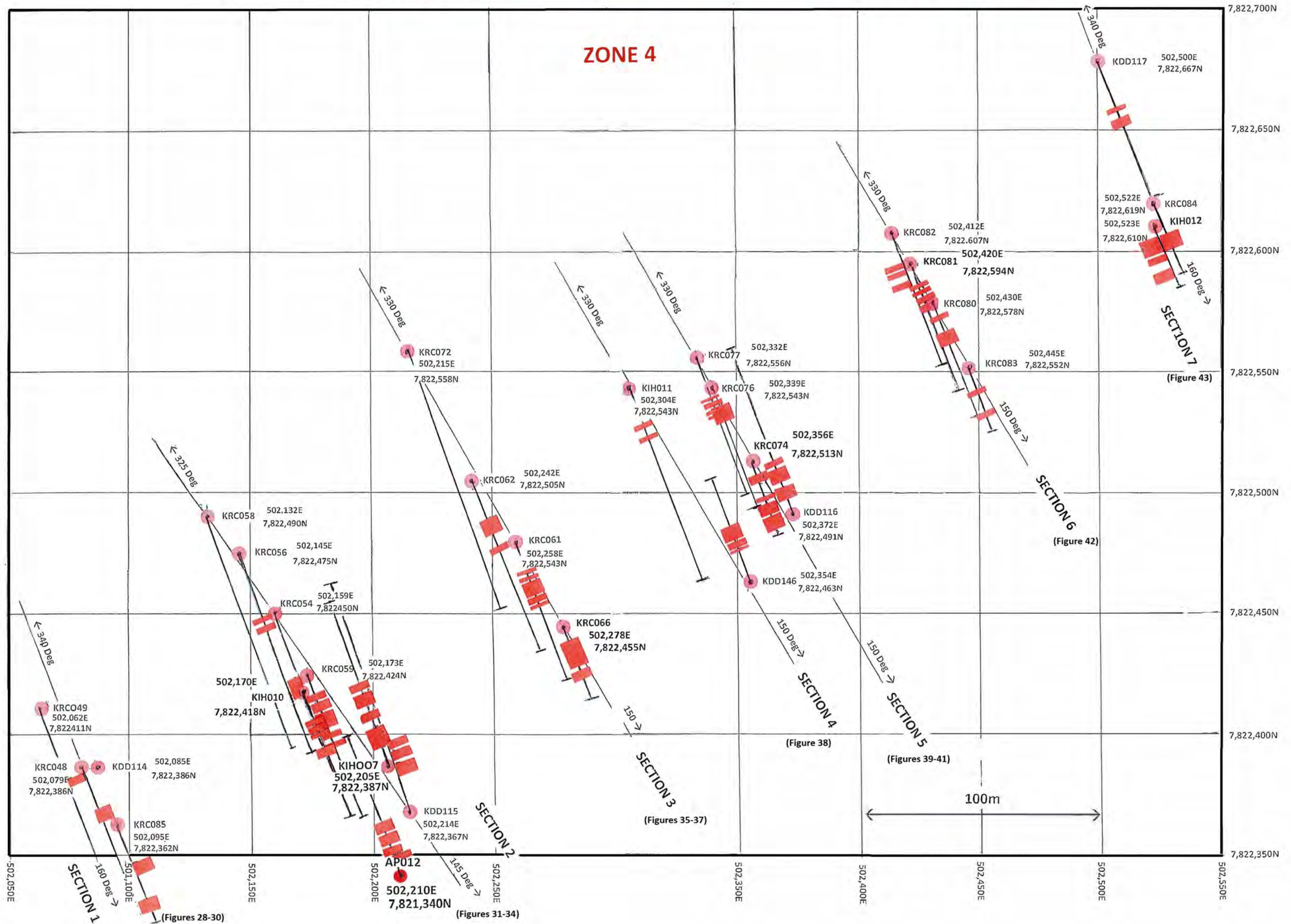




FIGURE 28

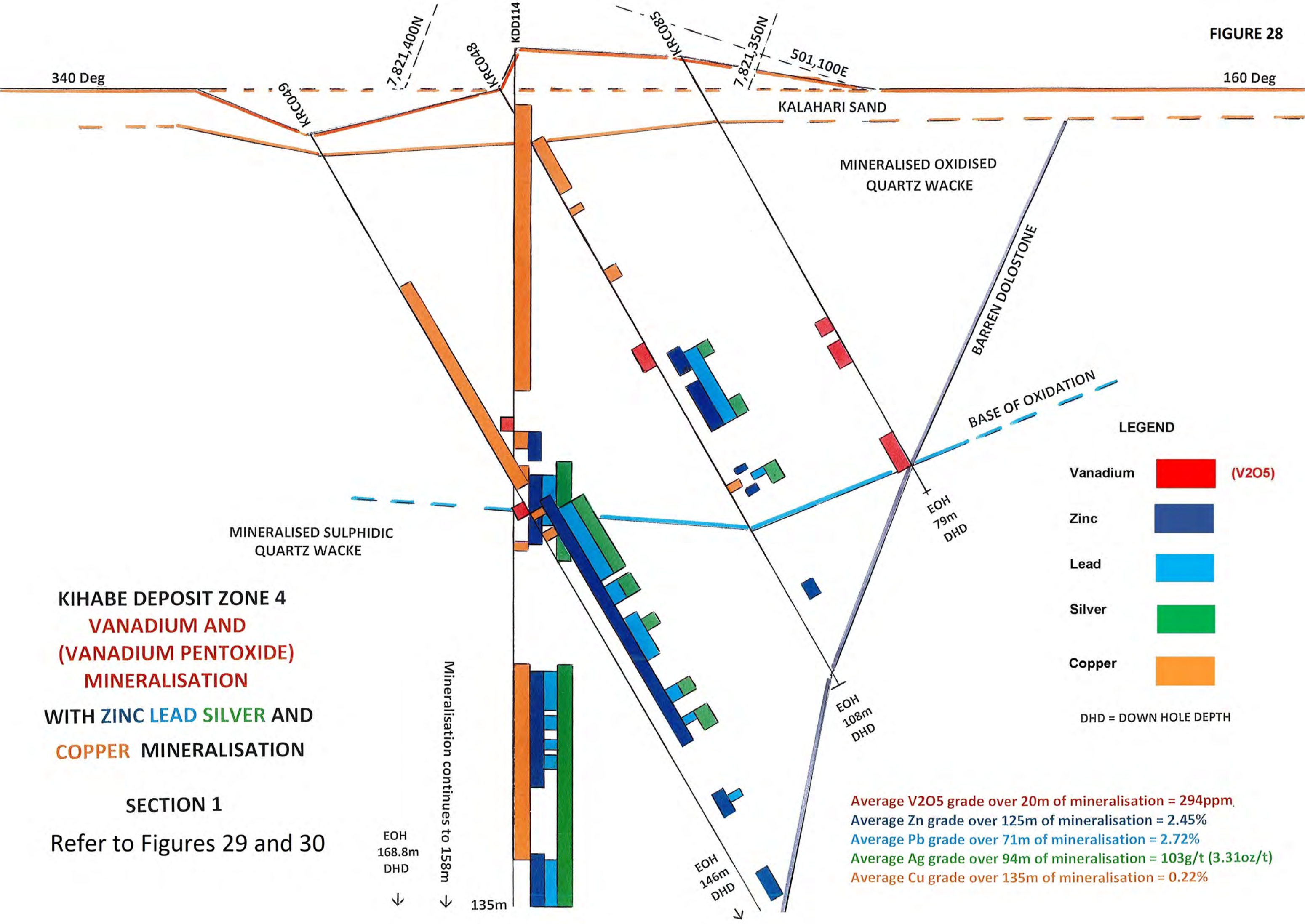




FIGURE 29

340 Deg

160 Deg

KALAHARI SAND

MINERALISED OXIDISED  
QUARTZ WACKE

BARREN DOLOSTONE

BASE OF OXIDATION

MINERALISED SULPHIDIC  
QUARTZ WACKE

# KIHABE DEPOSIT ZONE 4 SECTION 1

## LEGEND

Vanadium	<span style="color: red;">■</span>	(V2O5)
Zinc	<span style="color: blue;">■</span>	
Lead	<span style="color: cyan;">■</span>	
Silver	<span style="color: green;">■</span>	
Copper	<span style="color: orange;">■</span>	

DHD = DOWN HOLE DEPTH

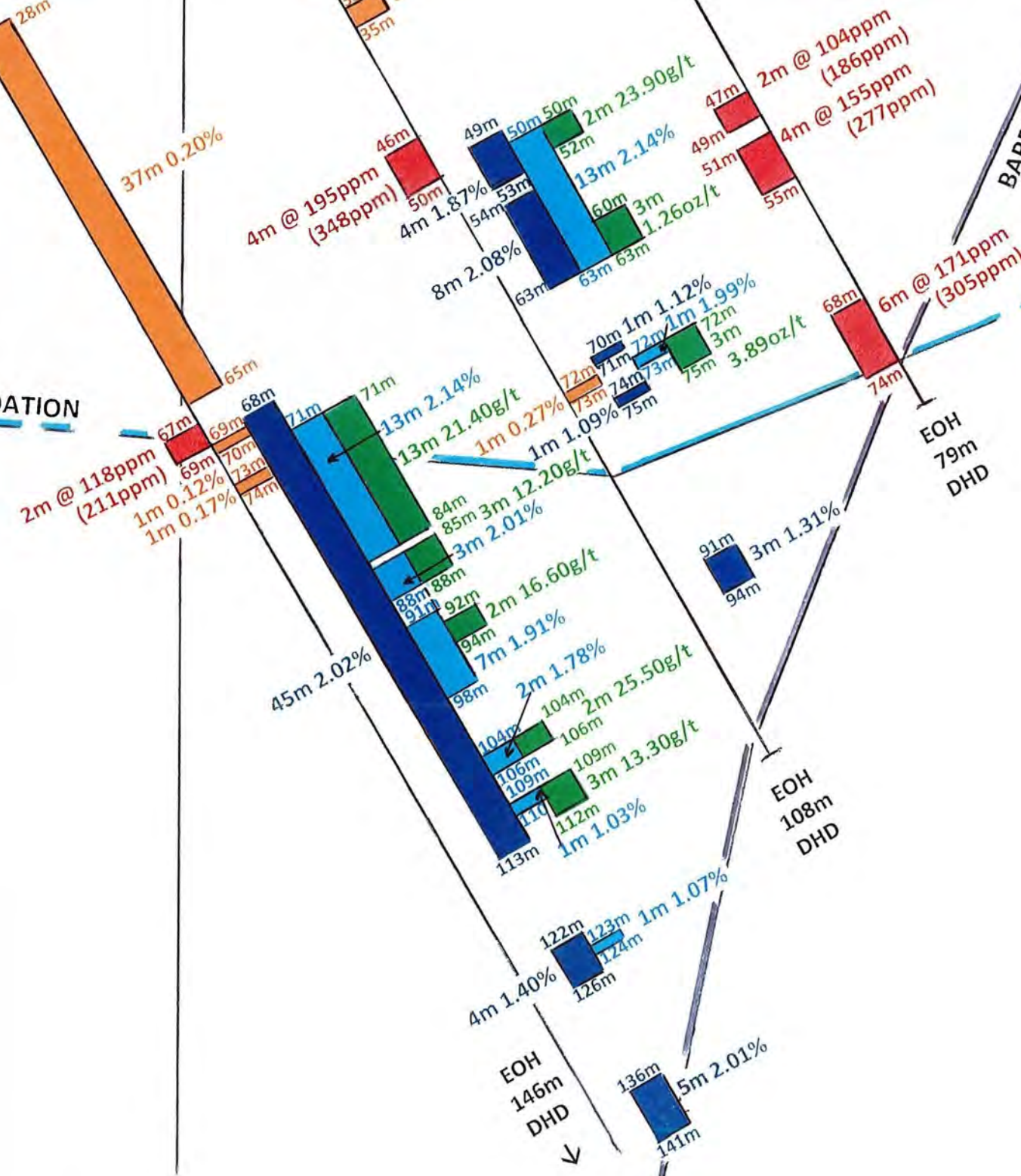




FIGURE 30

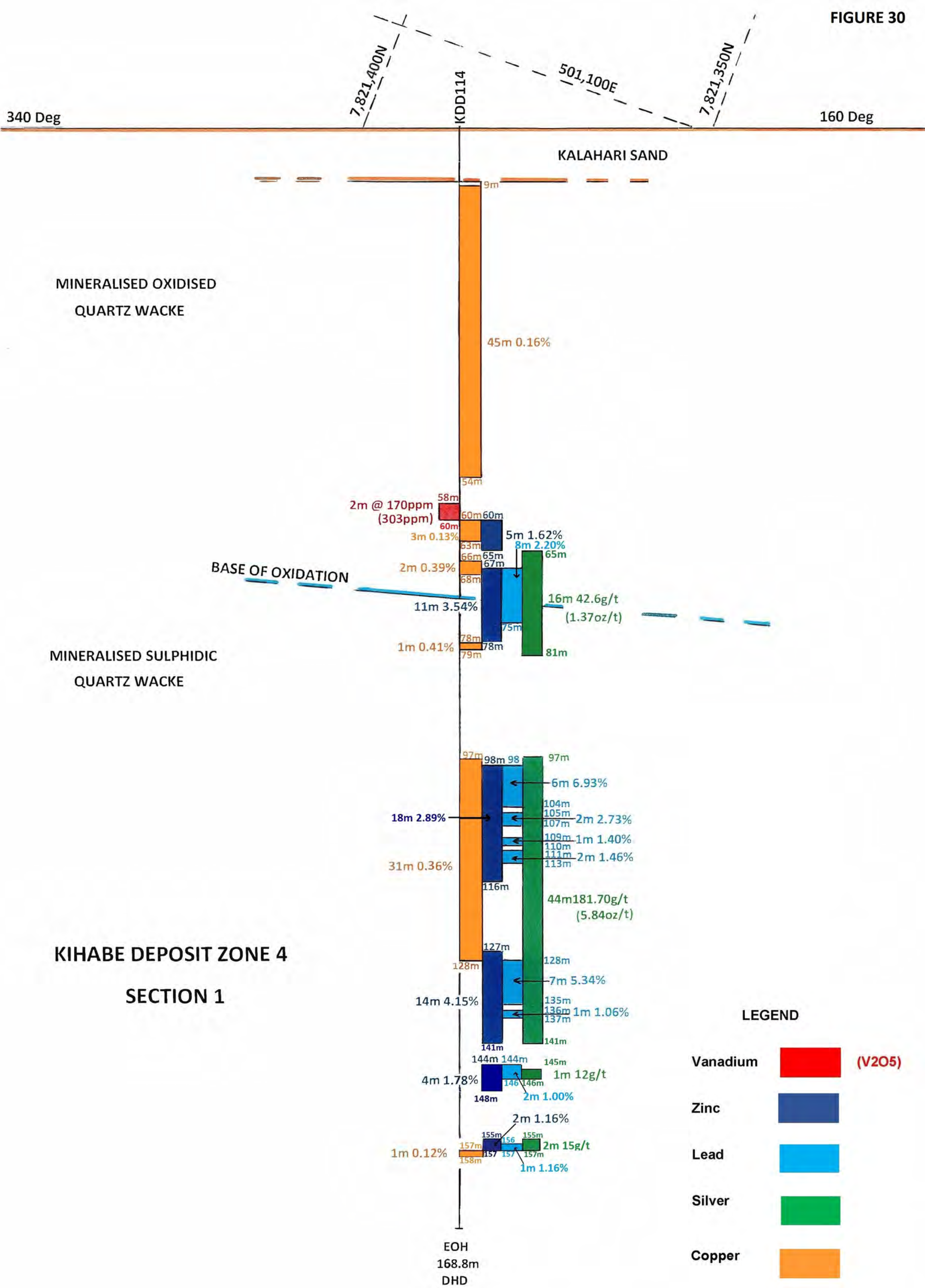
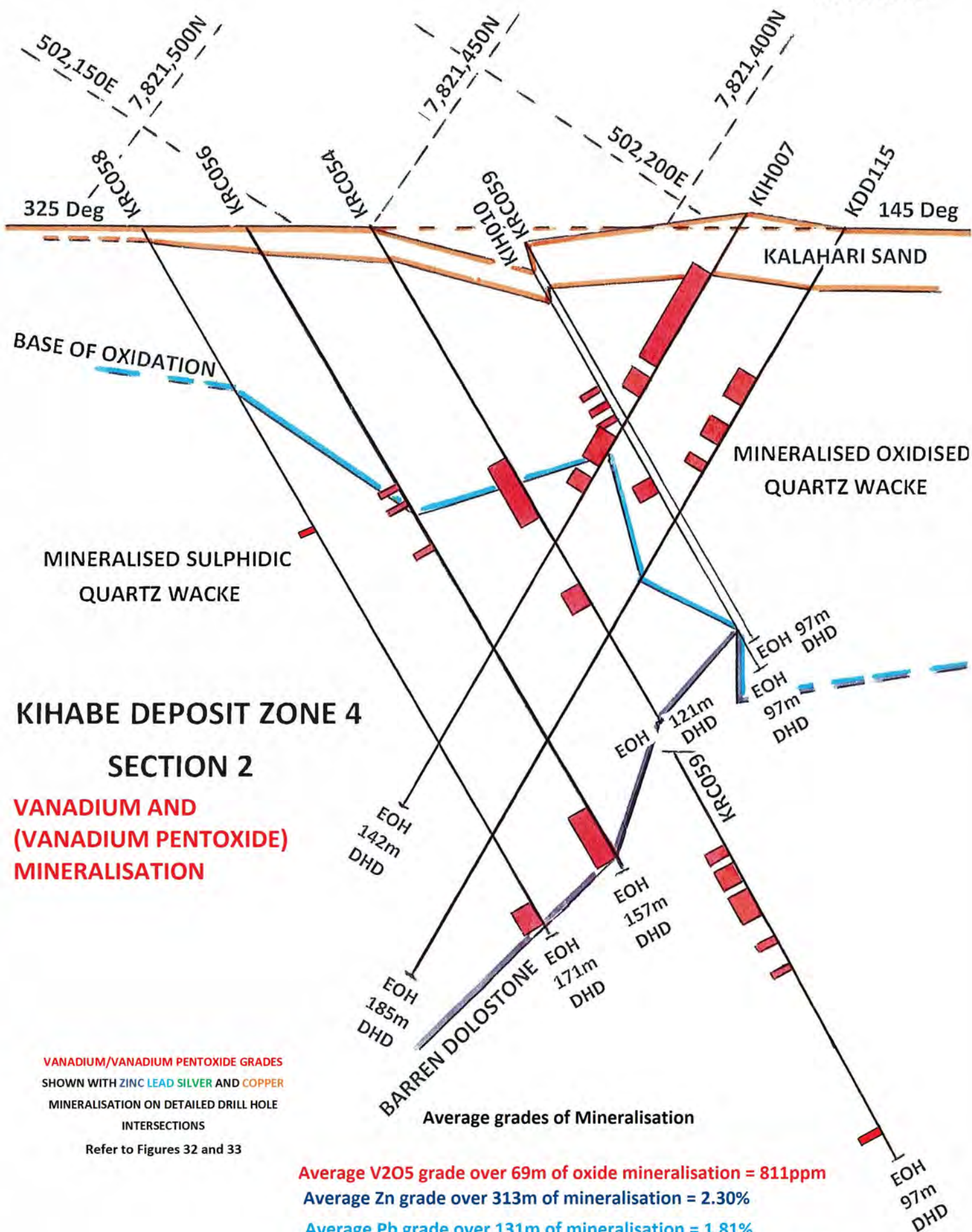




FIGURE 31



**Average V2O5 grade over 69m of oxide mineralisation = 811ppm**

**Average Zn grade over 313m of mineralisation = 2.30%**

**Average Pb grade over 131m of mineralisation = 1.81%**

**Average Ag grade over 94m of mineralisation = 74.32 g/t (2.39oz/t)**

**Average Cu grade over 52m of mineralisation = 0.23%**



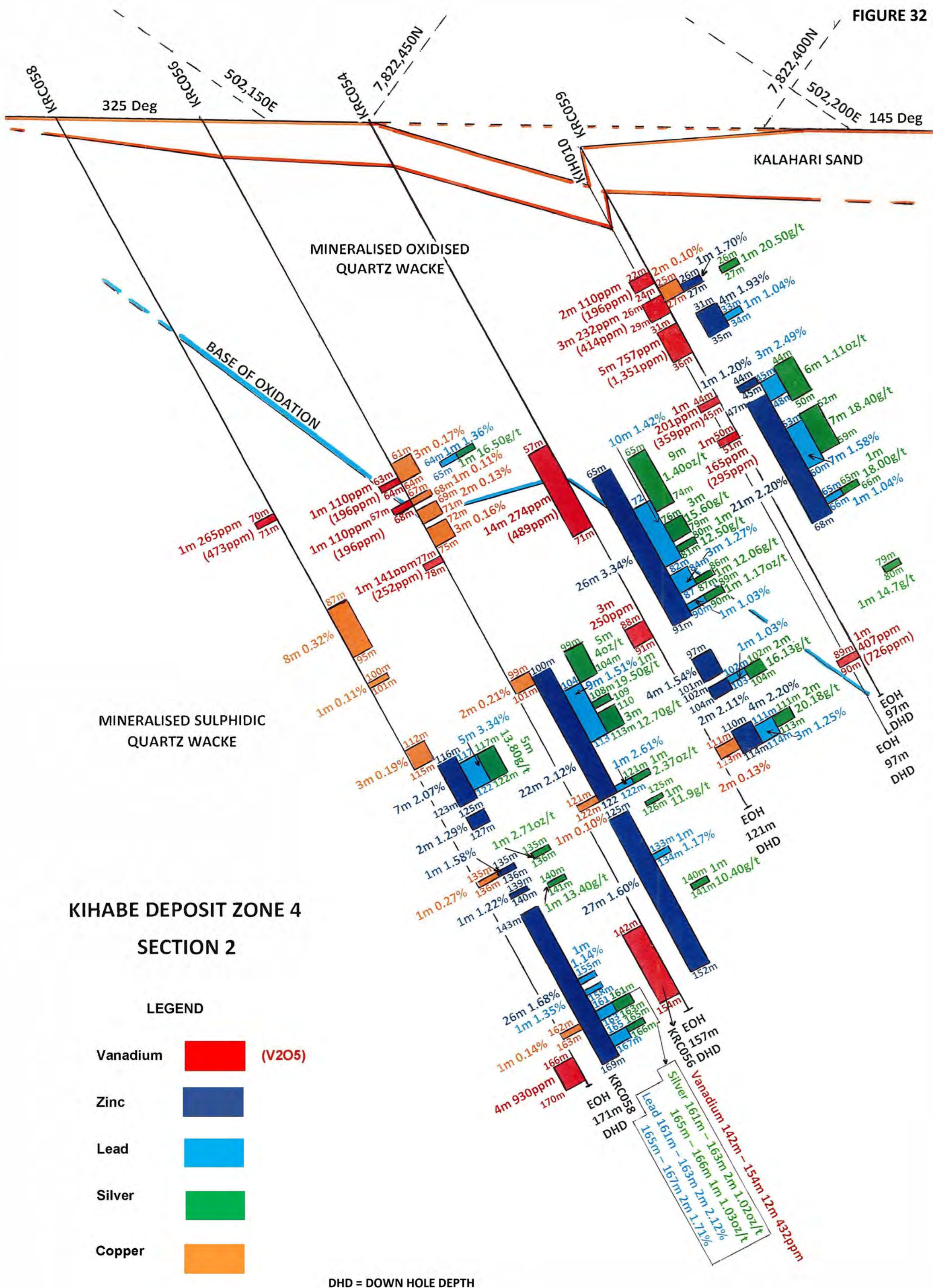




FIGURE 33

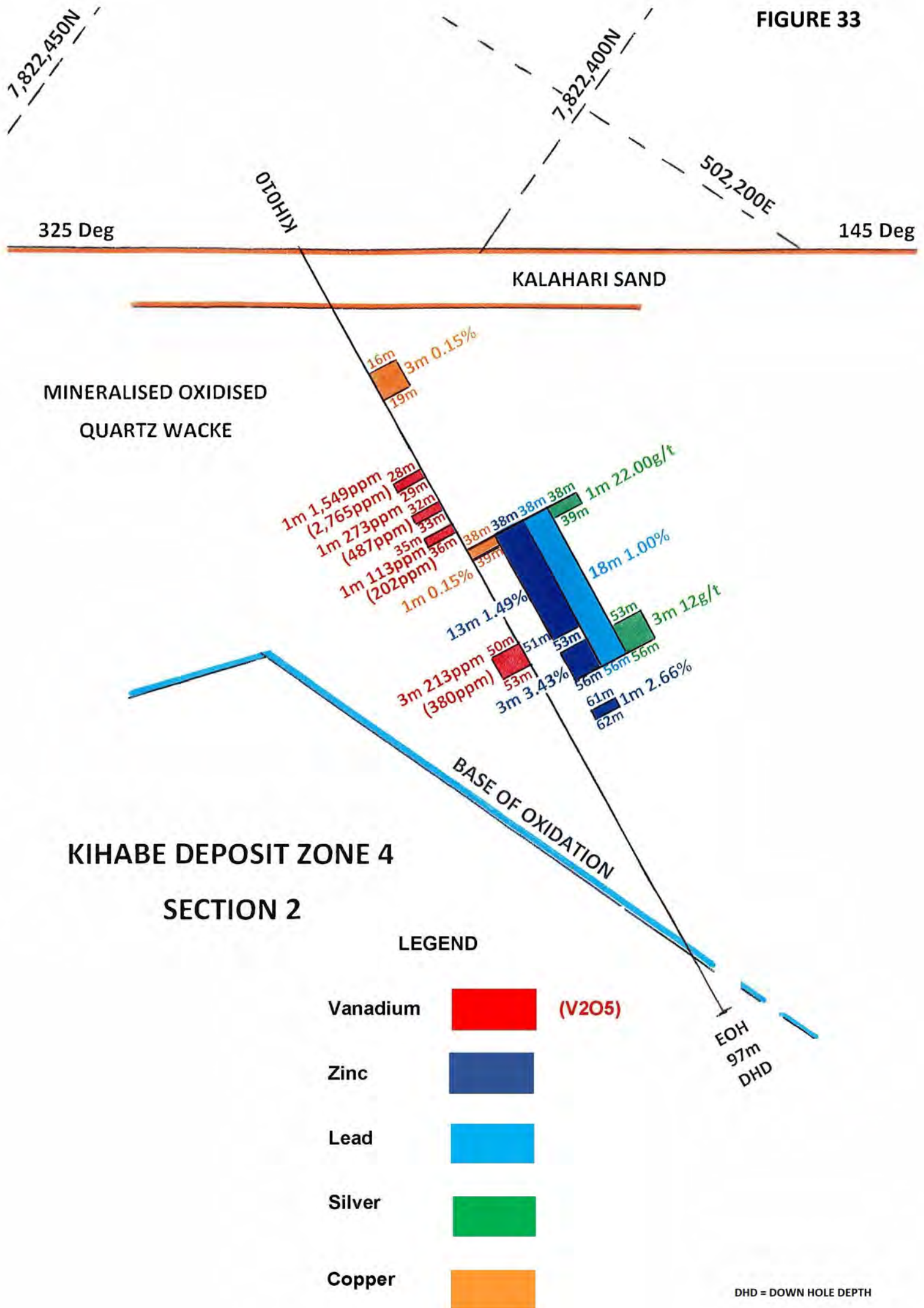




FIGURE 34

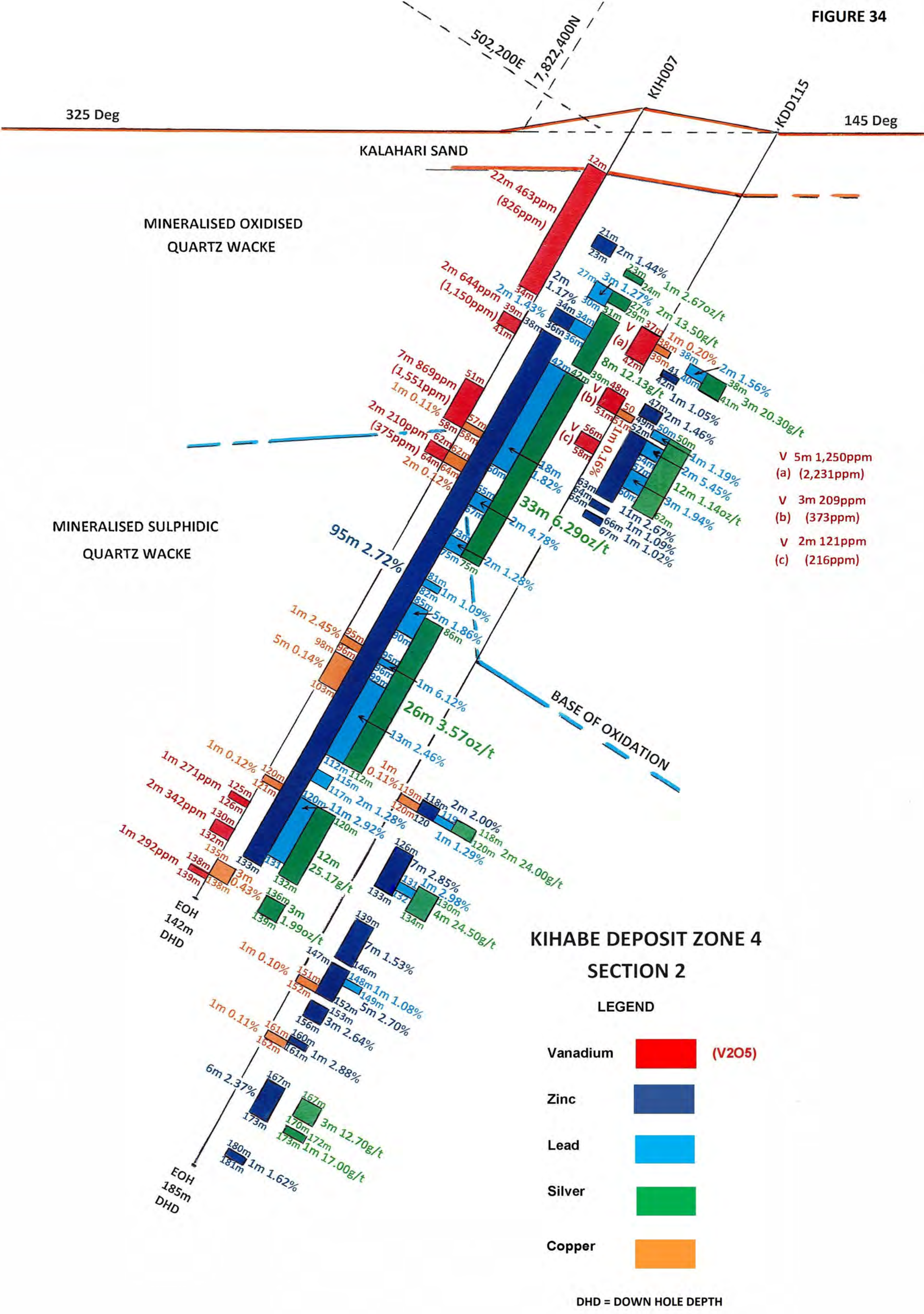




FIGURE 35

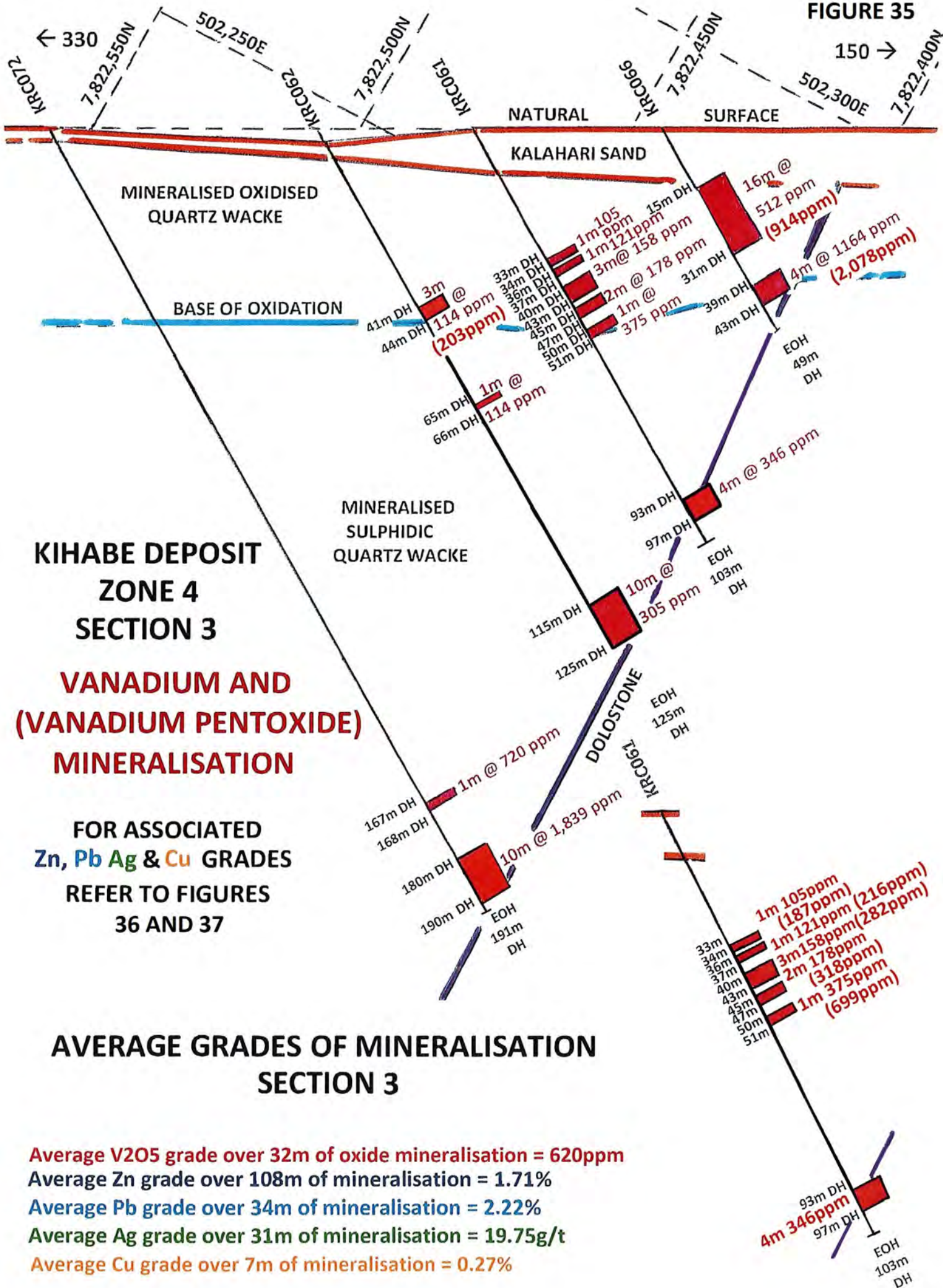




FIGURE 36

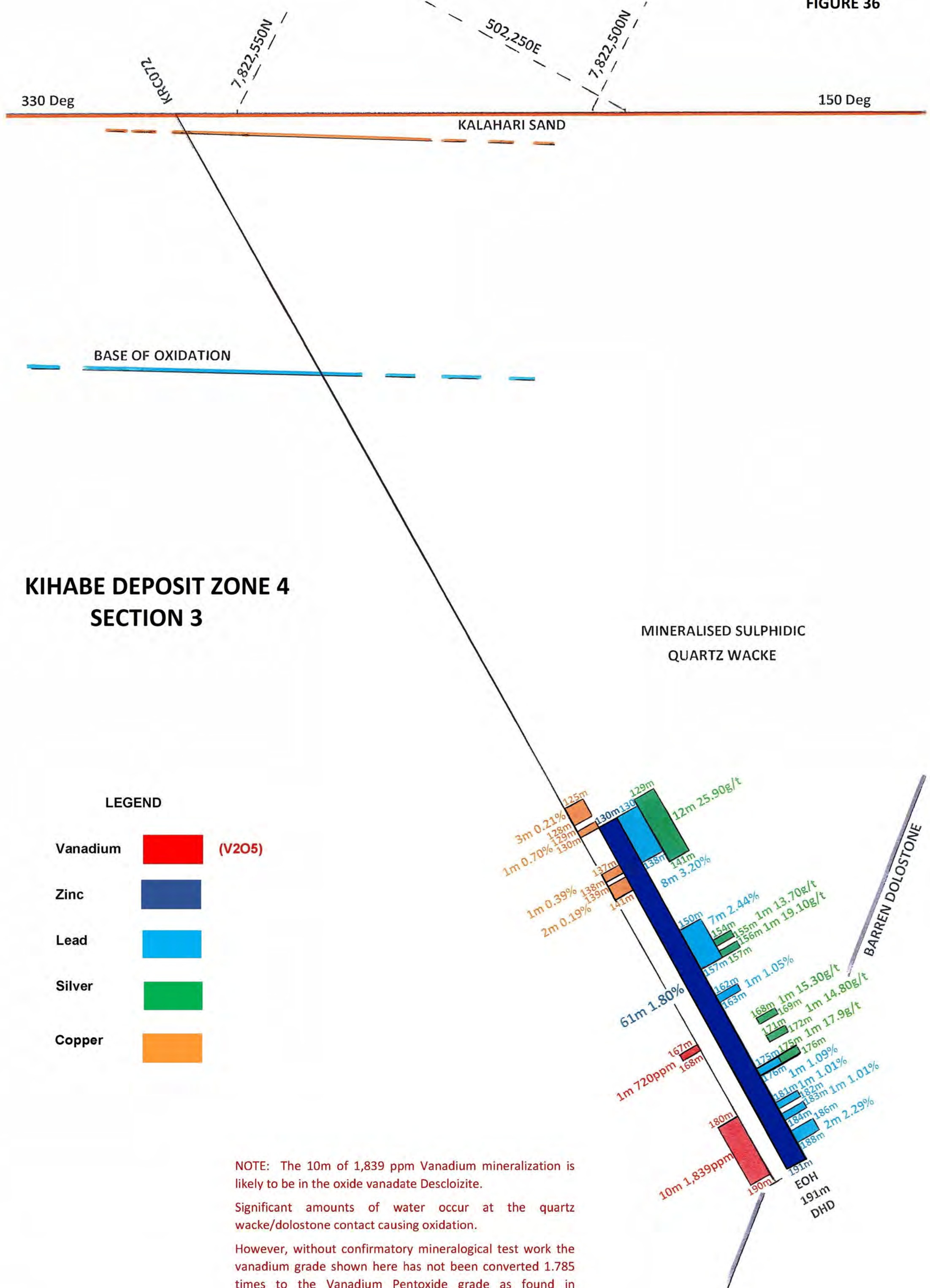




FIGURE 37

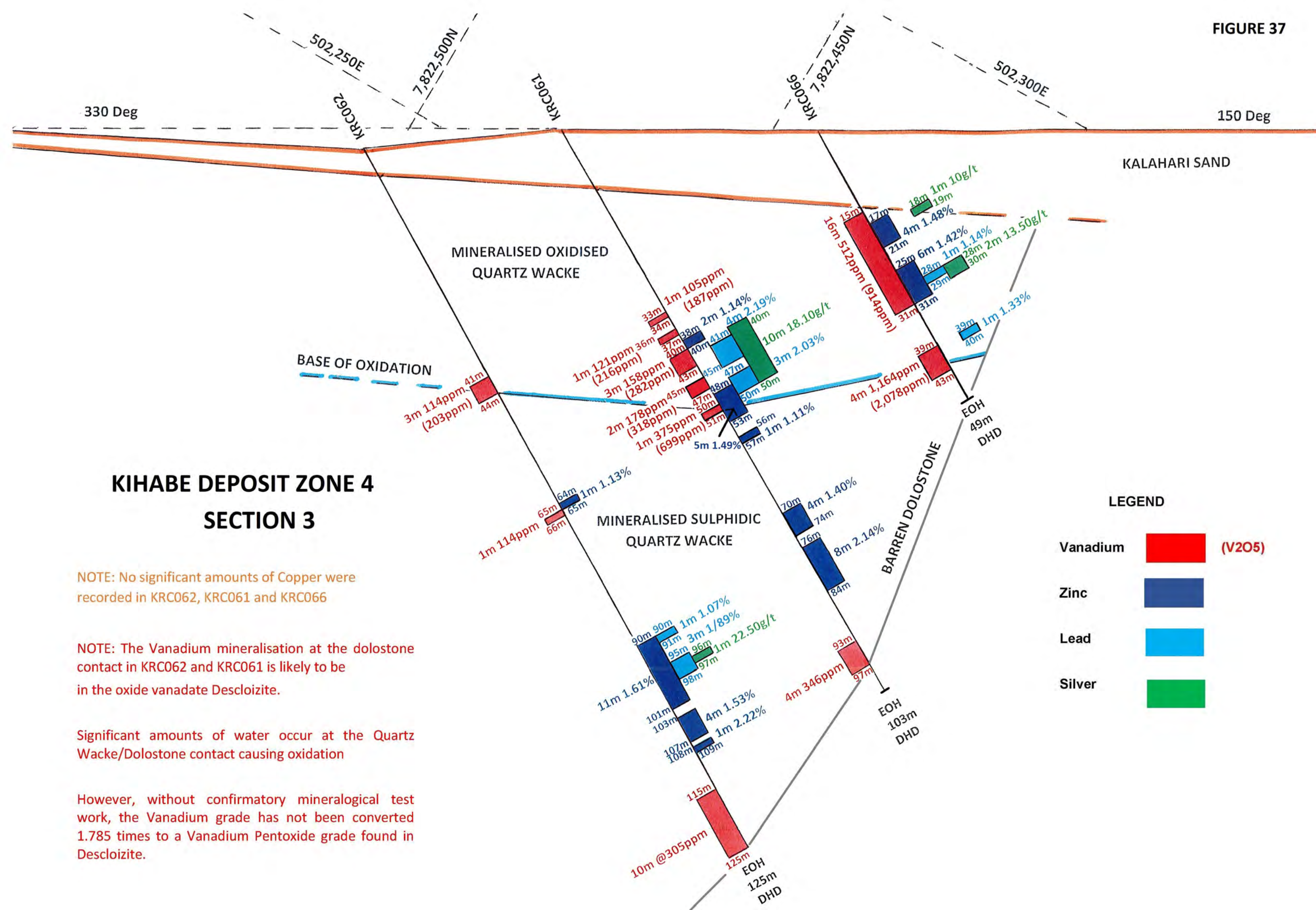
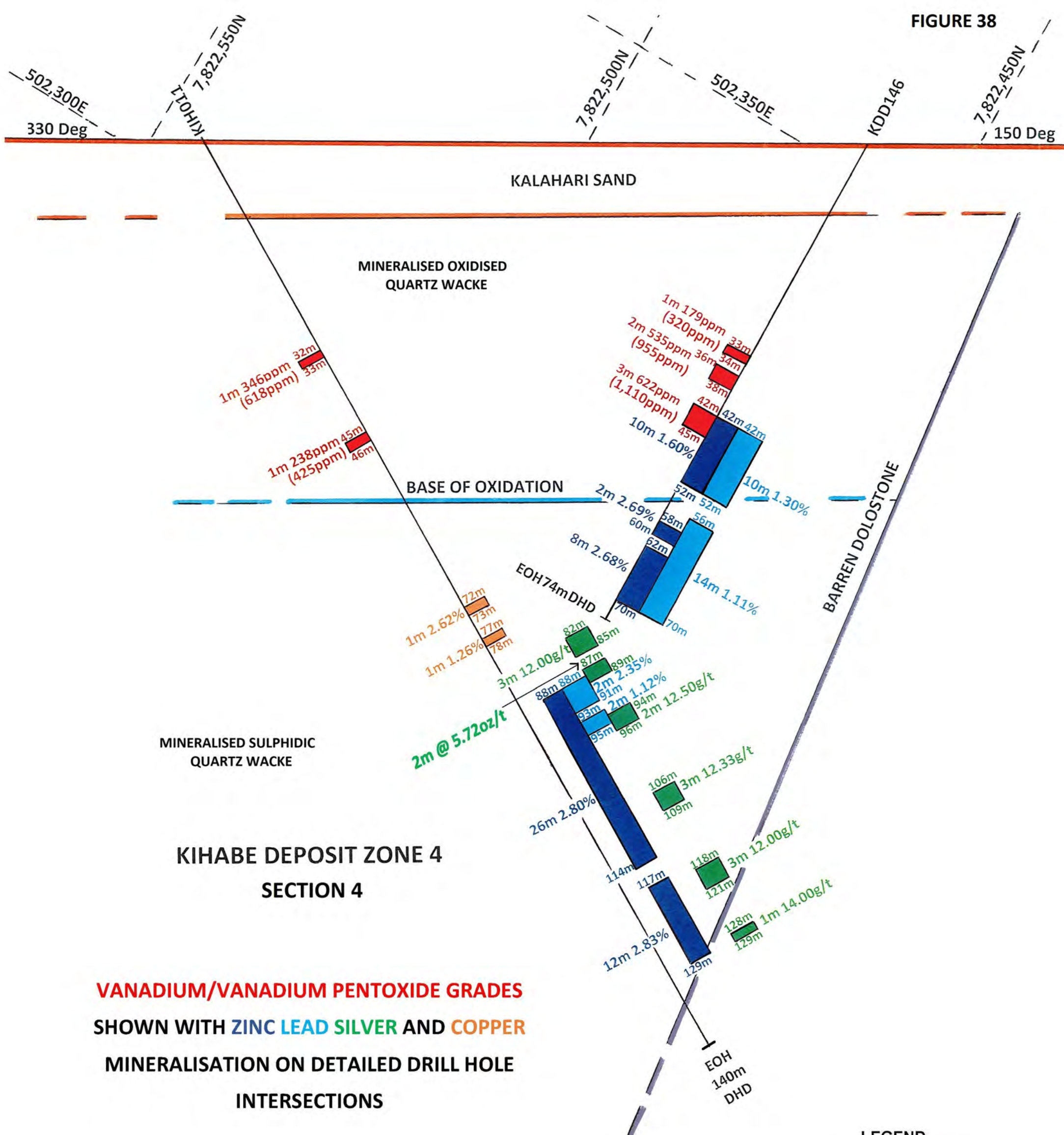




FIGURE 38



### AVERAGE GRADES OF MINERALISATION

Average V<sub>2</sub>O<sub>5</sub> grade over 8m of oxide mineralisation = 825ppm

Average Zn grade over 58m of mineralisation = 2.58%

Average Pb grade over 28m of mineralisation = 1.27%

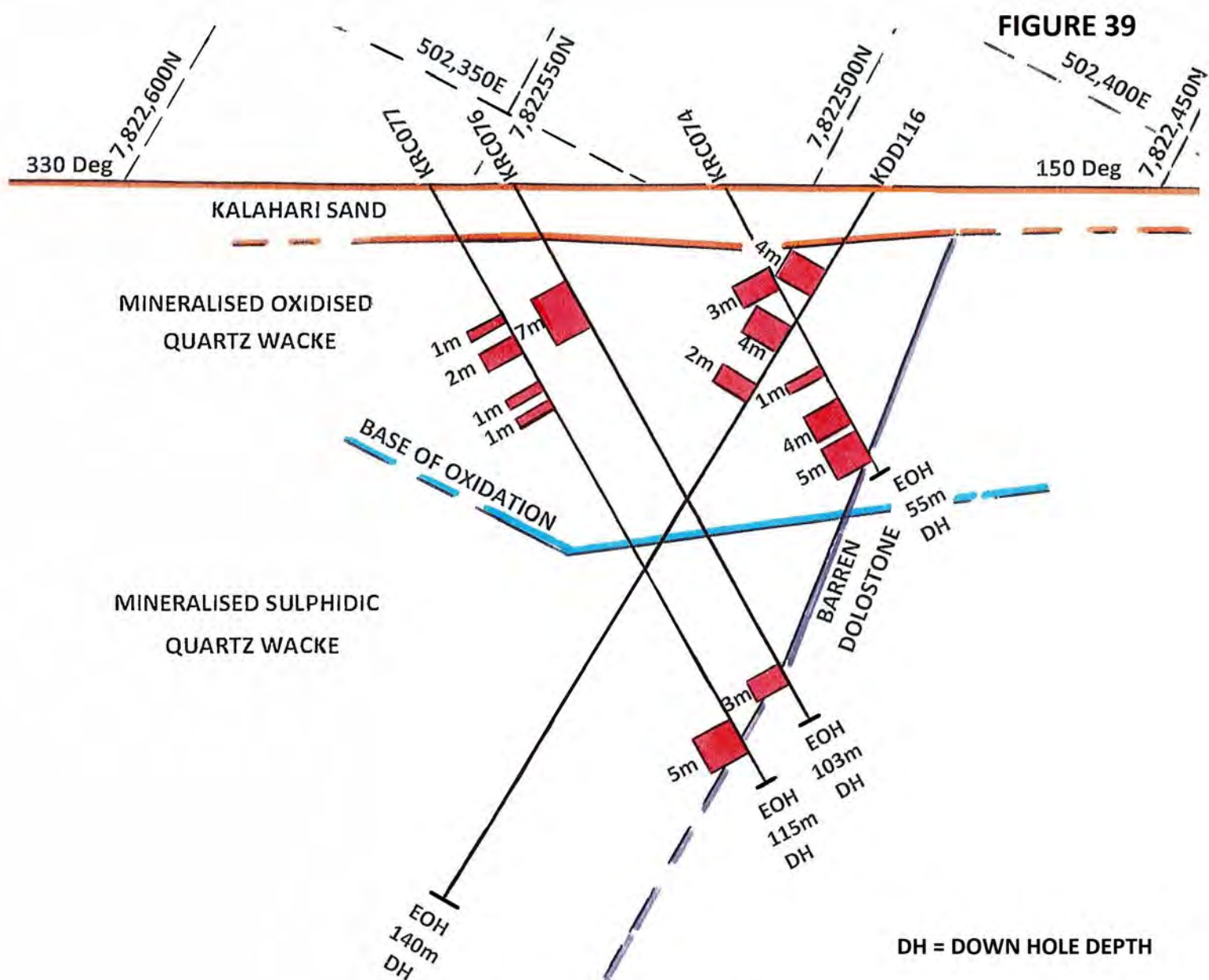
Average Ag grade over 31m of mineralisation = 1.16oz/t

Average Cu grade over 2m of mineralisation = 1.94%

NOTE: No significant amounts of Copper or Silver were recorded in KDD146



**FIGURE 39**



## KIHABE DEPOSIT ZONE 4 SECTION 5

### VANADIUM/VANADIUM PENTOXIDE MINERALISATION

For details of V/V<sub>2</sub>O<sub>5</sub> assay grades and intersections along side of Zn, Pb, Ag and Cu, refer to Figures 40 to 41

#### Average Grades of Mineralisation

Average V<sub>2</sub>O<sub>5</sub> grade over 35m of oxide mineralisation = 670ppm

Average Zn grade over 128m of mineralisation = 2.48%

Average Pb grade over 31m of mineralisation = 1.68%

Average Ag grade over 30m of mineralisation = 25.57g/t

Average Cu grade over 31m of mineralisation = 0.28%

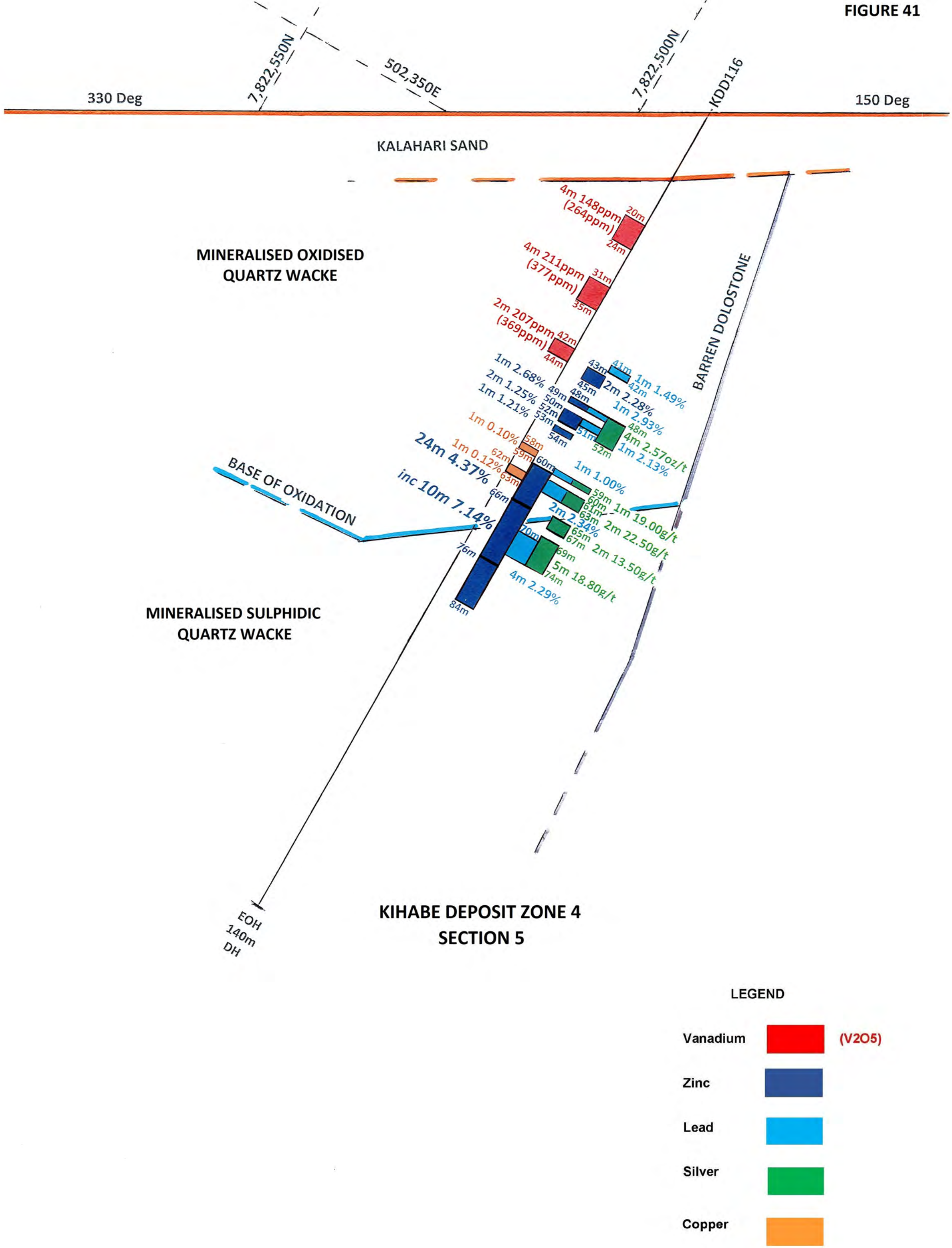
150 Deg



NOTE: KRC074 did not contain any significant Cu mineralisation



FIGURE 41





330 Deg

150 Deg

# KIHABE DEPOSIT ZONE 4 SECTION 6

NOTE: KRC080 and KRC083 did not contain any significant Zn, Pb, Ag, or Cu mineralisation

Average V2O5 grade over 14m of oxide mineralisation = 458ppm  
 Average Zn grade over 25m of mineralisation = 2.30%  
 Average Pb grade over 15m of mineralisation = 1.89%  
 Average Ag grade over 12m of mineralisation = 29.16g/t  
 Average Cu grade over 4m of mineralisation = 0.13%

MINERALISED OXIDISED  
QUARTZ WACKE

MINERALISED SULPHIDIC  
QUARTZ WACKE

KALAHARI SAND

BASE OF OXIDATION

BARREN DOLOSTONE

## LEGEND

Vanadium	<span style="color: red;">■</span>	(V2O5)
Zinc	<span style="color: blue;">■</span>	
Lead	<span style="color: cyan;">■</span>	
Silver	<span style="color: green;">■</span>	
Copper	<span style="color: orange;">■</span>	

KRC082

KRC081

KRC080

KRC083

1m 117ppm  
(209ppm)

1m 184ppm  
(328ppm)

1m 121ppm  
(216ppm)  
1m 585ppm  
(1,044ppm)

1m 125ppm  
(223ppm)  
1m 110ppm  
(196ppm)  
2m 658ppm  
(1,175ppm)

1m 107ppm  
(191ppm)

1m 101ppm  
(180ppm)

6m 369ppm  
2m 17.95g/t  
2m 1.69%

1m 1.22%

4m 574ppm  
1m 0.16%

1m 207ppm  
1m 256ppm

1m 113ppm  
1m 114ppm

3m 163ppm  
(291ppm)

1m 104ppm  
(186ppm)

1m 341ppm  
(609ppm)

1m 107ppm  
(191ppm)

1m 101ppm  
(180ppm)

6m 369ppm  
2m 17.95g/t  
2m 1.69%

1m 1.22%

4m 574ppm  
1m 0.16%

1m 207ppm  
1m 256ppm

1m 113ppm  
1m 114ppm

BASE OF OXIDATION

BASE OF OXIDATION

BASE OF OXIDATION

BASE OF OXIDATION

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BASE OF OXIDATION

EOH 52m  
DH

EOH 103m  
DH

EOH 109m  
DH

EOH 120m  
DH

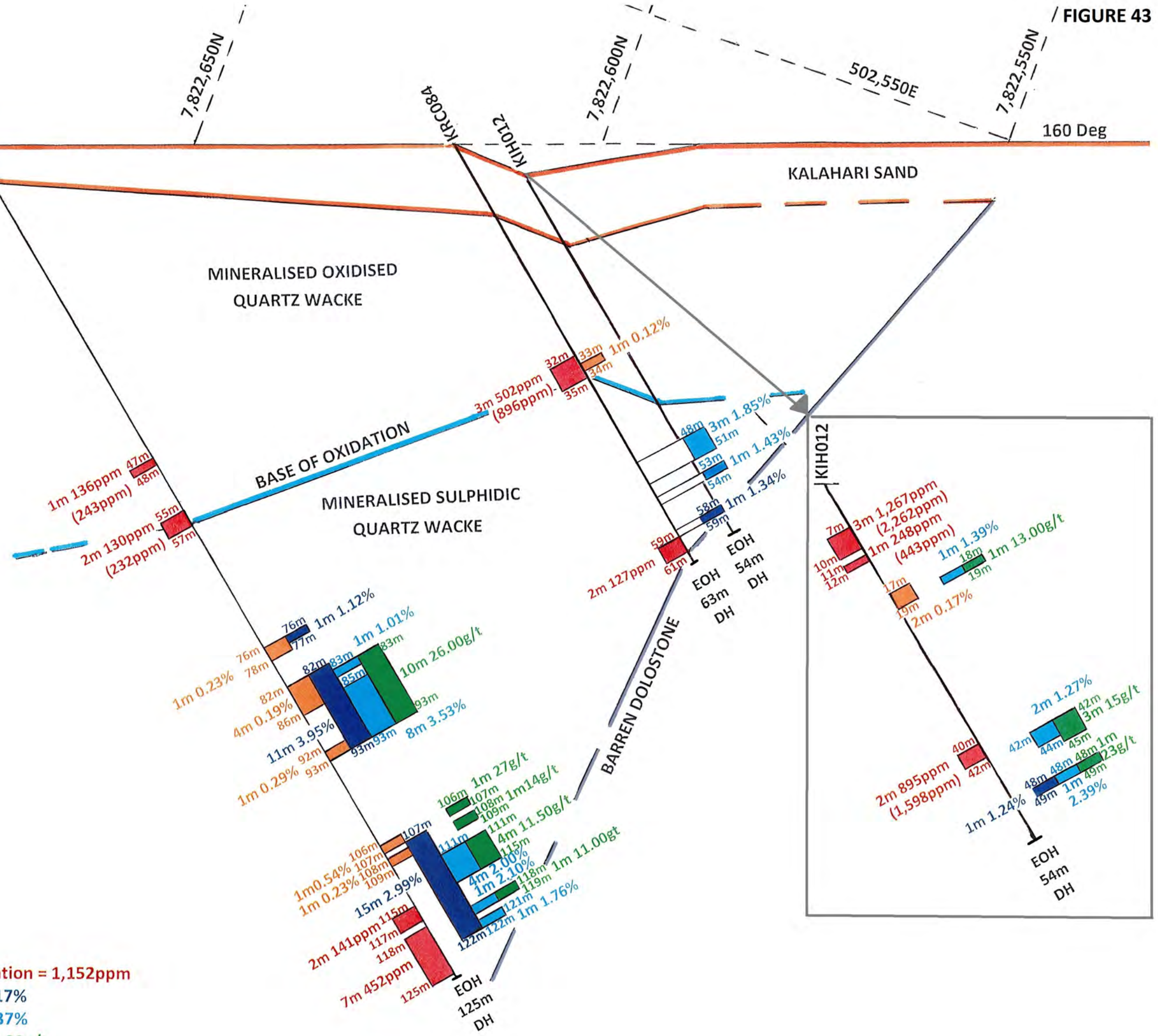


# KIHABE DEPOSIT ZONE 4 SECTION 7

## LEGEND

- Vanadium ■ (V2O5)
- Zinc ■
- Lead ■
- Silver ■
- Copper ■

Average V2O5 grade over 12m of oxide mineralisation = 1,152ppm  
Average Zn grade over 25m of mineralisation = 3.17%  
Average Pb grade over 15m of mineralisation = 2.37%  
Average Ag grade over 12m of mineralisation = 20.00g/t  
Average Cu grade over 4m of mineralisation = 0.23%



The following extract from the JORC Code 2012 Table 1 is provided for compliance with the Code requirements for the reporting of drilling results.

**Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections).**

Criteria	JORC code explanation	Commentary
Sampling techniques	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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (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.	<p><b>Mount Burgess Mining Diamond Core Holes</b></p> <p>HQ Diamond Core was marked and collected in sample trays, visually logged and cut in half. Samples were collected as nominal 1m intervals but based on visible geology with minimum samples of 0.3m and maximum samples of 1.3m. Half of each core was retained on site in core trays and the other half was double bagged and sent to Intertek Genalysis Randburg, South Africa where they were crushed. A portion of each intersection sample was then pulverised to p80 75um and sent to Intertek Genalysis for assaying via ICPMS/OES for Ag/Co/Cu/Pb/Zn/V.</p> <p><b>Mount Burgess Mining Reverse Circulation Holes</b></p> <p>Individual meters of RC drill chips were bagged from the cyclone. These were then riffle split for storage in smaller bags, with selected drill chips being stored in drill chip trays. A trowel was used to select drill chip samples from sample bags to be packaged and sent to Intertek Genalysis, Randburg, South Africa where they were crushed. A portion of each intersection's sample was then pulverised to P80 75um and sent to Intertek Genalysis, Maddington, WA, for assaying via ICP/OES for Ag/Co/Cu/Pb/Zn/V.</p> <p><b>Mount Burgess Mining Diamond Core Samples submitted for Metallurgical Test Work</b></p> <p>The remainder of the crushed samples were then sent from Intertek Genalysis Randburg to Intertek Genalysis Maddington, Western Australia where they were then collected by the Company for storage. Samples from various intersections from drill holes were selected by the Company for submission for metallurgical test work.</p>
	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<p><b>Mount Burgess Mining Diamond Core Holes</b></p> <p>HQ diameter triple tube was generally used for diamond core drilling in the oxide zone of the Kihabe Deposit. NQ diameter was generally used in the sulphide zone. Down hole surveys were conducted on all DD holes.</p>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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	<p><b>Mount Burgess Mining Diamond Core and RC Holes</b></p> <p>Sample recoveries were in general high and no unusual measures were taken to maximise sample recovery other than the use of triple tube core for diamond core drilling. Mount Burgess believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material.</p>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	<p><b>Mount Burgess Mining Diamond Core Holes and RC Hole</b></p> <p>Holes were logged in the field by qualified Geologists on the Company's log sheet template and of sufficient detail to support future mineral resource estimation: Qualitative observations covered Lithology, grain size, colour, alteration, mineralisation, structure. Quantitative logging included vein percent. SG calculations at ~5m intervals were taken in the DD holes. All holes were logged for the entire length of hole. Logs are entered into MTBs GIS database managed by MTB in Perth.</p>
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	<p><b>Mount Burgess Mining Diamond Holes and RC Hole</b></p> <p>HQ and NQ Core was sawn in half on site. Half of each core was retained on site in core trays and the other half was double bagged and labelled noting Hole# and interval both within the bag and on the bag. Sample bags were then placed in larger bags of ~40 individual samples and the larger bag also labelled describing the contents. Field duplicates were inserted at regular intervals.</p>



	<p>duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled</p>	<p>All samples currently being reported on were assayed for Ag/Co/Cu/ Pb/Zn/V.</p> <p>Samples from six drill holes currently being reported on were also assayed for Ge.</p> <p>All RC sample bags were labelled with drill hole number and sample interval and collectively stored in larger bags with similar reference. Drill chip trays were all stored separately.</p> <p>All samples currently reported on were assayed for Ag/Co/Cu/Pb/Zn/V.</p>
Quality of assay data and laboratory tests	<p>•The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total</p> <p>•For geophysical tools, spectrometers, hand-held XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc. • nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks ) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</p>	<p><b>All Mount Burgess Samples</b></p> <p>All samples, when originally assayed, were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques:</p> <p><b>Diamond Core Samples</b></p> <p>(a) Ore grade digest followed by ICP – OES finish for Silver, Lead &amp; Zinc</p> <p>(b) Also 4 acid digest for silver, lead, zinc followed by AAS</p> <p><b>RC Samples</b></p> <p>Ore grade digest followed by ICP-OES for Ag/Co/Cu/Pb/Zn/V</p> <p>Mount Burgess quality control procedures include following standard procedures when sampling, including sampling on geological intervals, and reviews of sampling techniques in the field.</p> <p>The current laboratory procedures applied to the Mount Burgess sample preparation include the use of cleaning lab equip. w/ compressed air between samples, quartz flushes between high grade samples, insertion of crusher duplicate QAQC samples, periodic pulverised sample particle size (QAQC) testing and insertion of laboratory pulp duplicates QAQC samples according to Intertek protocols.</p> <p>Intertek inserts QA/QC samples (duplicates, blanks and standards) into the sample series at a rate of approx. 1 in 20. These are tracked and reported on by Mount Burgess for each batch. When issues are noted the laboratory is informed and investigation conducted defining the nature of the discrepancy and whether further check assays are required. The laboratory completes its own QA/QC procedures and these are also tracked and reported on by Mount Burgess. Acceptable overall levels of analytical precision and accuracy are evident from analyses of the routine QAQC data</p>
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.</p>	<p><b>All Mount Burgess Samples</b></p> <p>Assay results for samples were received electronically from Intertek Genalysis and uploaded into MTB's database managed by MTB at its Perth Office.</p>
Location of data points	<p>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.</p>	<p><b>All Mount Burgess Holes</b></p> <p>Drill hole collar locations were recorded at the completion of each hole by hand held Garmin 62S GPS with horizontal accuracy of approx. 5 metres • Positional data was recorded in projection WGS84 UTM Zone 34S. The accuracy provided by the system employed is sufficient for the nature of the exploratory program. Downhole surveys were also conducted.</p>
Data spacing and distribution	<p>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.</p>	<p><b>All Mount Burgess Holes</b></p> <p>Mount Burgess drilling campaigns were undertaken to validate historical drilling as well as to acquire further data for future resource estimation.. The data spacing and distribution is currently insufficient to establish the degree of geological and grade continuity appropriate for the estimation of Mineral Resources compliant with the 2012 JORC Code.</p>

		Additional drilling will be required to determine the extent of mineralisation and estimate a Mineral Resource compliant with the 2012 JORC Code. Sample compositing was conducted on drill holes, following receipt of assays from Intertek Genalysis, for the purpose of mineralogical and metallurgical test work.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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.	<p><b>All Mount Burgess Holes</b></p> <p>Mineralisation was typically intersected at -60 degrees and -90 degrees at the Kihabe Deposit and the Company believes that unbiased sampling was achieved.</p>
Sample security	The measures taken to ensure sample security.	<p><b>All Mount Burgess Holes</b></p> <p>Samples were taken by vehicle on the day of collection to MTB's permanent field camp and stored there until transported by MTB personnel to Maun from where they were transported via regular courier service to laboratories in South Africa.</p>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<p><b>All Mount Burgess Diamond Core Holes</b></p> <p>A Company Geologist reviewed sampling and logging methods throughout the drilling programs.</p> <p><b>Mount Burgess RC Hole</b></p> <p>MTB's Exploration Geologists continually reviewed sampling and logging methods on site throughout the drilling programs.</p>



## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Kihabe-Nxuu Project is located in north-western Botswana, adjacent to the border with Namibia. The Project is made up of one granted prospecting licence - PL 43/2016, which covers an area of 1000 sq km. This licence is 100% owned and operated by Mount Burgess. The title is current at the time of release of this report, with a renewal granted in November 2020 to 31 December 2022.  PL 43/2016 is in an area designated as Communal Grazing Area.
	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.	The licence is in good standing and no impediments to operating are currently known to exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Geological Survey of Botswana undertook a program of soil geochemical sampling in 1982. As a result of this program, Billiton was invited to undertake exploration and drilling activities in and around the project area. Mount Burgess first took ownership of the project in 2003 and has undertaken exploration activities on a continual basis since then.
Geology	Deposit type, geological setting and style of mineralisation.	The Kihabe-Nxuu Project lies in the NW part of Botswana at the southern margin of the Congo craton. The Gossan Anomaly is centred on an exposed gossan within the project. To the north of the project are granitoids, ironstones, quartzites and mica schists of the Tsodilo Hills Group covered by extensive recent Cainozoic sediments of the Kalahari Group. Below the extensive Kalahari sediments are siliciclastic sediments and igneous rocks of the Karoo Supergroup in fault bounded blocks.
Drill hole Information	<p>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:</p> <p>easting and northing of the drill hole collar</p> <p>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</p> <p>dip and azimuth of the hole</p> <p>down hole length and interception depth</p> <p>hole length</p> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract</p>	<p>Information material to the understanding of the exploration results reported by Mount Burgess is provided in the text of the public announcements released to the ASX.</p> <p>No material information has been excluded from the announcements.</p>

Criteria	JORC Code Explanation	Commentary
	from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p><b>All Mount Burgess Holes</b></p> <p>No data aggregation methods have been used.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p><b>All Mount Burgess Holes</b></p> <p>The geometry of the mineralisation with respect to the drill hole angle is typically at -60 degrees at the Kihabe Deposit which is considered representative from a geological modelling perspective.</p>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<p><b>All Mount Burgess Holes</b></p> <p>Appropriate maps, sections and mineralised drill intersection details are provided in public announcements released to the ASX. Refer to the Company's website <a href="http://www.mountburgess.com">www.mountburgess.com</a>.</p>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Exploration results reported in Mount Burgess public announcements and this report are comprehensively reported in a balanced manner.
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, ground water, geotechnical and rock	



Criteria	JORC Code Explanation	Commentary
	characteristics, potential deleterious or contaminating substances.	
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	Further works planned at the Project include additional drilling and surface mapping at the Kihabe-Nxuu Zinc/Lead/Silver/Germanium and Vanadium Project.

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