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(ಭಾರತ ಸರ್ಕಾರದ ಉದ್ಯಮ)
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KUDREMUKH
ಐಎಸ್ಓ 9001, 14001 ಮತ್ತು ಓಹೆಚ್ಎಸ್ಎಎಸ್ 18001 ಸಂಸ್ಥೆ
आई एस ओ 9001, 14001 तथा ओएचएसएएस 18001 कम्पनी
ISO 9001, 14001 &
OHSAS 18001 COMPANY

No. KIOCL/BD/DEVADARI/ 327

10 Feb 2017

Dy. Director General (Karnataka & Goa Region),
Geological Survey of India,
Outer Ring Rd, 1st Stage,
Kumaraswamy Layout,
Bengaluru, 560078

Dear Sir,

Subject: Utilizing the Exploration Report prepared by Geological Survey of India on "Investigation of the iron ore resources in selected freehold areas in NMDC block in parts of Sandur Schist Belt, Bellary District, Karnataka"- namely Devadari Range.

As you may be please to be aware that KIOCL Limited (formerly Kudremukh Iron Ore Company Limited) is Mini Ratna Company under the Ministry of Steel, Government of India was formed in 1976 for mining and beneficiation of iron ore from Kudremukh Mines located in the State of Karnataka. KIOCL had operated highly Mechanized iron ore mine to produce 22.5 million tonnes of Run of Mine (ROM) per annum with state- of- the- art beneficiation technology to produce 7.5 million tonnes of iron ore concentrate at Kudremukh. Presently, KIOCL is operating Iron Oxide Pellet Plant and Blast Furnace Unit at Mangalore, Karnataka.

KIOCL submitted reservation proposal to Govt. of Karnataka for Devadari iron ore block Sandur Taluk, Bellary District for Iron Ore & Manganese ore under the provisions of section 17 (A) 2 of MMDR Act, 1957. On recommendation from Govt. of Karnataka, Ministry of Mines, GoI vide letter dated 05.12.2016 granted approval under section 17 (A) 2 of MMDR Act, 1957 for reserving area of 470.40 ha in Devadari Range, Sandur Taluk, Bellary district in favour of KIOCL Limited. Subsequently, Govt. of Karnataka issued Gazette notification on 23.01.2017 for reservation of said area in favour of KIOCL for mining lease of iron and Manganese ore. Copy of Notification enclosed for ready reference.

KIOCL is in the process of obtaining statutory clearances from authorities to commence mining operation. It is learnt that the part of said reserved area was explored by Geological Survey of India during the year 2005-2008 and the exploration report (Code No.MIE/SR/KG/2005/028) is made available in the website of GSI for download. We want to utilize the said exploration report for preparation of mine plan and its approval from Indian Bureau of Mines.

In this regard, may I request you to kindly provide us the complete exploration report of the Devadari Range, Sandur Schist Belt, Bellary District, Karnataka along with plates and permission for utilizing the same for preparation of mine plan and getting statutory clearances from the authorities.

Thanking you,

Yours faithfully,
For KIOCL Limited,

(B P Pal)
General Manager (P, BPD)

Enclosed: as above.

भारत सरकार
GOVERNMENT OF INDIA
भारतीय भूवैज्ञानिक सर्वेक्षण
GEOLOGICAL SURVEY OF INDIA

तकनीकी परामर्श सुविधा प्रभाग, TCS Division,
दक्षिणी क्षेत्र, Southern Region,
बंडलागुडा, Bandlaguda,
हैदराबाद - 500 068। Hyderabad
Phone: 040-24222071, Fax: 040-24220958

No. 1423 /03/TCS/SR/2016-17 Date:27.02.2017

To
The General Manager
KIOCL Limited
II Block, Koramangala
Bangalore – 560034.

Sub: Report entitled "Investigation of the iron ore resource in selected freehold areas in NMDC block in parts of Sandur Schist Belt, Bellary District, Karnataka" – namely Devadari Range.

Ref: Lt.No. KIOCL/BD/DEVADARI/327, dt. 10/02/2017.

Sir,

With reference to your letter cited above. The said report along with all plates is available in GSI Website. Accordingly you are requested to take following steps to retrieve the report for your use:

1. Please log into www.gsi.gov.in
2. Go to report and
3. Search by ACC. No. SRO – 13875.

Yours faithfully,
Manojit Nandi
27/02/2017
(Manojit Nandi)
Superintending Geologist,
TCS Division, SR
for Director.

(Manojit Nandi)
Superintending Geologist,
TCS Division, SR
for Director.

Classified as “A”

GOVERNMENT OF INDIA
GEOLOGICAL SURVEY OF INDIA

INVESTIGATION OF THE IRON ORE RESOURCES IN SELECTED FREEHOLD AREAS IN NMDC BLOCK IN PARTS OF SANDUR SCHIST BELT, BELLARY DISTRICT, KARNATAKA (E-I STAGE)

(Final report for the field seasons 2005-08)

(Code No.MIE/SR/KG/2005/028)

N. Subramanian
Geologist (Sr.)

D. D. Raju
Geologist (Sr.)

E. Hanumantha Rao
Geologist (Jr.)

Mohamed Ahmed
Geologist (Sr.)

PROJECT: IRON ORE
Operations: Karnataka And Goa
BANGALORE--560 078
2009

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ABSTRACT

The iron ore investigation in the freehold areas of Sandur schist belt has been taken at the request of State Government of Karnataka. The geological mapping, trenching and drilling have brought out three Banded Haematite Chert bands interbedded with metabasalt/tuff, ferruginous phyllite/phyllite and ferruginous shale/shale. The BHC bands trend NNW-SSE dipping moderate to sub-vertical towards east. Drilling has established a strike length of 1470 m of mineralized banded haematite chert on the western band and 620m of mineralized BHC band on the central band. The analytical result of chip/bedrock, trench and core samples have brought 47.74F % to 64.6 % of Fe(t), 45.40 % to 63.89 % of Fe(t) and 46.01 % to 64.72 % of Fe(t), respectively.

The resource estimation reveals that the western banded haematite chert have 56,24,407 tonnes with a grade of 56.07 % at 45 % cut-off, 47,95,027 tonnes with a grade of 59.12 % at 50 % cut-off and 36,58,508 tonnes with a grade of 61.93 % at 55 % cut-off. The central banded haematite chert have resource of 25,81,106 tonnes with a grade of 58.67 % at 45 % cut-off, 23,37,272 tonnes with a grade of 59.98 % at 50 % cut-off and 20,59,126 tonnes with a grade of 60.87 % at 55 % cut-off.

Finally, The study area (both western and central BHC band) has a reserve potential of 82,05,513 tonnes with a grade of 57.37 % of Fe(t) at 45 % cut-off, 71,32,299 tonnes with a grade of 59.55 % of Fe(t) at 50 % cut-off and 57,17,634 tonnes with a grade of 61.40 % of Fe(t) at 55 % cut-off.

INVESTIGATION OF THE IRON ORE RESOURCES IN SELECTED FREEHOLD AREAS IN NMDC BLOCK IN PARTS OF SANDUR SCHIST BELT, BELLARY DISTRICT, KARNATAKA (E-I STAGE)

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Geologist (Sr.)

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Geologist (Jr.)

Mohamed Ahmed
Geologist (Sr.)

I. INTRODUCTION

The Sandur Basin has been extensively explored and exploited for iron ore resources by various agencies however, there are still some unexplored freehold areas, which hold good potential for iron ore resources. As the iron ore demand is surging in the domestic as well as global market, the GSI has taken up exploration in Sandur belt after a gap of almost two decades for proving additional resources of iron ore at the request of Government of Karnataka.

In pursuance of the annual field season programme of the Geological Survey of India, Operations: Karnataka and Goa, Southern Region, Bangalore vide Code No. MIE/SR/KG/ 2005/028, item No.077, FS: 2005-06, 2006-07 (extended to the FS: 2007-08), E-I stage exploration was taken up for preliminary quantitative and qualitative assessment of the iron ore in the freehold areas lying between M/s V. S. Lad Mines in north and M/s BMM Mines in south in Devadaribetta range (referred to as NMDC block in this report) in Sandur schist belt, Karnataka.

Initially, the work was taken up for FS: 2005-06, but due to drilling problem, the drilling could be commenced only during June-2006 and only one borehole (NB-1) could be completed during the field season. Therefore, drilling investigation was extended for FS: 2006-07 (Code No. MIE/SR/KG/2005/028, item No.076, page no.112 of FS: 2006-07). Again the target of drilling could not be achieved by the drilling crew. The Stage Review Committee/Mid-term Review Committee visited the area of investigation and based on their

recommendation further drilling and trenching was carried out, subsequently during 2007-08 and the investigation was closed on 04.11.2008.

a) Location and Accessibility

The study area is located west of Donimalai township of NMDC, which is 10 km SE of Sandur town and 70 km from Bellary town and is bounded by latitude 15^{o} 01'40"-15^{o} 03' 45"N and longitude 76^{o} 34' 00"-76^{o} 36' 30"E in Toposheet no.57 A/12. It can be approached by asphalted road from Bellary upto Donimalai township and further by unmetalled road owned by M/s BMM Mines. Donimalai town can be also approached by asphalted road from Sandur. A panoramic view of the study area is given in Photo-1

b) Previous work

Bruce Foote (1895) was the first to map the Sandur Schist Belt. Biswas and Roy (1976) carried out the systematic geological mapping of the Sandur Basin on 1:63,360 scale besides delineating the BIF bands and presented a detailed litho-stratigraphic classification of Sandur Group. Mishra, et al. (1972, 1980) carried out exploration by drilling for the estimation of reserves of iron ore to a depth of 30 to 40 m in selected leased blocks, viz., Ramandurg range and NEB range in the northeastern sector of the Sandur basin.

c) Present work

The present work involved assessment of quality and quantity of iron ore by detailed mapping (1:2000 scale, Plate-1) and LSM on 1:12500 scale (Plate-1A), chip sampling, trenching and drilling. A total of 1 sq km of detailed mapping, 81 nos. of chip/bedrock samples, 270 cu m of trenching with 131 nos. of trench samples and 678.45 m of drilling with 417 nos. of core sampling were carried out by S/Shri E. Hanumantha Rao and Mohamed Ahmed during FS: 2005-06; D. D. Raju during FS: 2006-07 and N. Subramanian during FS: 2007-08. The investigation and drilling commence on 22.12.2005 and 30.06.2006, respectively and was closed on 04.11.2008. Detailed mapping for 1 sq km, trenching of 90 cu. m, drilling of 368.40 m in 6 boreholes (NB-3, 4, 5, 6, 7 & 1C), 227 nos. of core samples and 62 nos. of trench samples have been carried out during 2007-08 by N. Subramanian.

Table-1: Nature and Quantum of work carried out in during FS: 2005-08

Nature of work	2005-06		2006-07		2007-08		Total
	Target	Achievement	Target	Achievement	Target	Achievement	
LSM (sq km) 1:12500 scale	5	5.25					5.25
DM (sq km) 1:2000					1.00	1.00	1.00
PT (cu. m)	150	180				90	270
Drilling (m)	500	102.20	350	207.85	250	368.40	678.45
SMPL (nos.)							
PTS	50	69				62	121
CS	300	38	200	152	121	227	417

d) Acknowledgement

The authors express their sincere thanks to S/Shri A. V. Jayaprakash and Mohamed Ahmed, Directors, Project: Iron Ore, Operations: Karnataka and Goa, for their valuable guidance both in the field as well as in writing of the report. The authors are also grateful to S/Shri V. V. Rao, S. K. Bhushan and A. K. Chattopadhyay, then Deputy Director Generals, Operations: Karnataka and Goa for providing necessary logistic support in executing the exploration work. Thanks area also due to S/Shri Ajit Kumar, and P. F. Augustine, then Deputy Director Generals, SR, for their co-operation to extend the work to F:S 2007-08 to complete the work and suggestions during their visit to the field. The authors are also grateful to the Stage Review Committee and Mid-term Review Committee for review the work during January, 2008 and for their re-orientation of the exploration strategy.

Our sincere thanks are to Shri N. Rajendran, the then Director (CT), Dr. K. Rajaram, Director (CT), OP: K&G and Shri K. Prabhakara, Geologist (Sr.) in lending their help in resource estimation. Finally, authors are grateful to Shri Bhupender Singh for looking after the investigation temporarily Last but not the least, the authors express their thanks to CMD, GM and Shri Shivashankarappa, Geologist, NMDC, Donimalai for providing accommodation and cooperation during the course of the investigation.

II. GEOLOGY

a) Regional Geology

The Sandur schist belt is a spindle shaped doubly plunging synform covering an area of 960 sq km. The main litho-package is of metavolcanics represented by metabasalt-rhyolite and tuffs (phyllite) and metasedimentary represented by banded haematite chert ± magnetite and manganiferous phyllite. Well developed pillow structures in basaltic rocks have been identified in many parts of the area. The basin is known for its rich resource of both iron and manganese ore. The basin has recorded polyphase granitic intrusion.

The stratigraphic succession given by Biswas and Roy (1976) is as follows:

Laterite	
Dolerite and gabbro	
Pegmatite and quartz vein.	
Equigranular grey and pink granite Porphyritic grey and pink granite Metagabbro and Metadolerite Metapyroxenite	**Torangallu and Anantapur granite** (Closepet granite)
Shale and tuffaceous shale, bedded chert Meta-andesite, meta-rhyolite and metabasalt	**Nandihalli Formation**
Banded ferruginous quartzite with Interbedded ferruginous shale and metabasalt	**Donimalai Formation**
Phyllite, tuffaceous phyllite, greywacke, Micaceous quartzite, andalusite bearing Argillite and conglomerate, manganophyllite, Orthoquartzite	**Deogiri Formation**
Metabasalt and rhyolite	**Yeshwantpur Formation**
Bellary gneiss and Gargi gneiss	**Peninsular Gneissic Complex** (Peninsular Gneiss)

b) Geology of study area

The detailed geological mapping has been carried out on 1:2000 scale for an area of 1 sq km lying between M/s V. S. Lad Mines in north and M/s BMM Mines in south, Devadaribetta (NMDC block). Detailed mapping, bedrock/channel sampling, trenching and drilling have brought out three major lithounits, viz., metabasalt, banded haematite chert and ferruginous shale/phyllite.

Metabasalt: Metabasalt is the predominant lithounit occurring in the valleys and mid slopes. It is greenish in colour, hard and compact, fine grained rocks with chlorite (after pyroxene) and plagioclase feldspar. Metabasalt are often associated with carbonates and limonite (oxidized sulphide).

Phyllite: Phyllite shows silky sheen and probably derived from metabasalt and tuff.

Shale/ferruginous shale: It is of fine grained compact clay without any fissility and with or without Fe content.

Banded Haematite Chert band (BHC): It is reddish brown/blackish brown in colour and is traced continuously/discontinuously in the study area. The types of iron ore occurring in the area are lateritic/laminated/lumpy, biscuity and blue dust. In the southern part (south of the fault, Plate-1) and in the northern part, the ore is in the form of fines in the western band. The central band on either side of the fault also shows mineralized fines. Non mineralized BHC shows Fe content <40 %. BHC is overlained/underlained by metabasalt and phyllite (after tuff/metabasalt). Float ore is being mined on the foreground of the study area (Photo-2)

On the basis of analytical result of bedrock, trench and core samples, western BHC band is traced for a strike length of 1470 m represented by borehole NB-1C for a strike length of 360 m (south of the fault) with a true width of 56.40 m, NB-2A for a strike length of 240 m with a true width of 14.02 m, NB-3 for a strike length of 100 m with a true width of 21.65 m, NB-4 for a strike length of 180 m with a true width of 1.73 m, NB-5 for a strike length of 220 m with a true width of 20.70 m, NB-6 for a strike length of 200 m with a true width of 26.32 m. Finally the strike length between NB-6 and NT-7 comes around 170 m is also taken to fix the northern limit of the western BHC band.

Mineralised central band is traced for a strike length of 620 m represented by boreholes NB-1 and NB-1A (south of the fault) and NB-2 and 7 (north of the fault). NB-1 is traced for strike length of 220 m with a true width of 19.73 m, NB-2 for a strike length of 250 m with a true width of 20.30 m, NB-7 for a strike length of 150 m with a true width of 34.30 m. The resource of iron ore is calculated on the above strike length fixing the equidistance on either side of the borehole. The eastern BHC band has given <45 % of Fe total with high silica content did not encourage to do trenching/drilling and apart from the steepness of the band.

c) Structure

The area forms a part of the eastern limb of the synform (F_1) with axial plane trending NNW-SSE direction. The strike is of NNW-SSE with moderate to steep dipping towards east. This major synform is referred as Sandur-Donimalai syncline. This syncline shows structural closure to the south near Devagiri, i.e. further south of the study area. Repetition of mineralized BHC shows the folded nature (no other evidences) and faulted. Faulting has led for specularite on either side of the southern fault trending NNW-ESE with (cutting across central and western band) a displacement for 40 m. NW-SE trending fault plane has been observed south of L_6 (Plate-1).

d) Metamorphism

The rocks of this area have undergone a low grade green schist facies metamorphism represented by typical mineral assemblages of the facies.

III. EXPLORATION

a) Bedrock sampling

Channel/chip sampling (bedrock sampling) was carried out along profile cutting across the western and central BHC bands (Plate-2). Eight profile on the western band and one profile on the central band were identified for the collection of bedrock sample. The profile L_3 falls on central band and the remaining fall on the western band. Eighty one bedrock/channel samples have been collected along the profile L_1 to L_9. Bedrock samples (Annexure-I) have assayed Fe(t) of 55.24 % on L_1, 56.44 % on L_2, 44.28 % on L_3, 47.92 % on L_4, 56.42 % on L_5, 57.61 % on L_6, 47.74 % on L_7, 63.33 % on L_8 and 64.60 % on L_9 (Photo-3). Bedrock samples collected on 8 out of the 9 profiles have Fe(t) of >45 % while samples from L_3 has assayed 44.28 % of Fe(t). The L_3 profile falls on the borehole NB-7 of the central band.

b) Trenching

Eight trenches (Plate-3-10) amounting 258.50 cu m have been put across the western and central band of the study area and 112 nos. of trench samples have been collected. A total of 136 cu m (TR-1 (Photo-4), 7 and 8) were dug on the western band and 52 nos. of trench samples were collected while 122.50 cu m trenching (TR-2 (Photo-5), 3, 4, 5 and 6) were put on central band and 60 nos. of trench samples were collected for analysis.

The analytical results for Fe(t) is corroborates with core sample analysis (Annexure-II).

Analytical result of Western band trenches: Analysis of 27 samples collected from NT-1 (south to the NB-1 and 1C) with 3 m interval assayed Fe(t) of 53.93 % where as 13 samples from NT-7 with an interval of 2 m gave Fe(t) of 63.38 %. Trench no. NT-8 is the northern limit of the western band as well as out study area and 12 samples collected from NT-8 with an interval of 2 m analysed 45.40 % Fe(t).

***Analytical result of Central band trenches*:** Nine out of 11 samples collected from NT-2 (33 cu m) have a weighted average of 63.89 % Fe(t). Ten samples collected from NT-3 (30 cu m) has given Fe(t) of 59.31 %. A total of 10 samples has been collected from NT-4 (30 cu m) have assayed weighted average Fe(t) of 55.32 % while samples (15 nos.) from NT-5 (15.5 cu m) have given weighted average of 52.87 % Fe(t). NT-6 is the northern limit of the central band. Further north of this trench silicification/chert is comparatively more hence,

further trenching was carried out. A total of 14 samples have been collected from NT-6 (14 cu m) and have analysed weighted average of 55.25 % Fe(t).

c) Drilling

On the basis of bed rock and trench sample values a total of 678.45 m drilling has been achieved in the study are falling on the western and central BHC band (Plates 11-19). Summary of the drilling activity undertaken in this block is given below in Table-2. the detailed litholog, summarised litholog and analytical results of the core samples are given is Annexure-III , IV and V, respectively.

Table-2 Summary of the Drilling Activity

Sl. No.	BH No.	From	To	Depth	Date of Comm.	Date of Closer	R.L. of Collar	Remarks
		(in meters)						
1	NB-1	0.00	73.15	73.15	03.06.06	30.08.06	907.80	Abandoned at 42.50 m
2	NB-1A	0.00	42.50	42.50	16.09.06	15.11.06	926.10	Abandoned at 38.10 m
3	NB-1B	0.00	38.10	38.10	24.11.06	01.03.07	925.60	
4	NB-1C	0.00	80.10	80.10	24.03.08	28.06.08	925.00	
5	NB-2	0.00	60.00	60.00	19.07.07	23.08.07	888.70	
6	NB-2A	0.00	57.30	57.30	03.05.07	05.07.07	877.10	
7	NB-3	0.00	77.70	77.70	03.09.07	05.11.07	863.00	
8	NB-4	0.00	67.50	67.50	31.12.07	13.02.08	881.60	
9	NB-5	0.00	73.30	73.30	18.08.08	01.11.08	899.90	
10	NB-6	0.00	55.00	55.00	23.06.08	30.07.08	887.60	
11	NB-7	0.00	53.80	53.80	19.07.08	29.08.08	903.90	

Analytical result of western band: On the basis of analysis of bedrock and trench samples, NB-1C for 80.10 m, NB-2A for 57.30 m, NB-3 for 77.70 m, NB-4 for 67.50 m, NB-5 for 73.30 m and NB-6 for 55.00 m were drilled on the western band for a total depth of 410.90 m.

Borehole NB-1C with a weighted average of 56.73 % of Fe(t) from 0.00 to 60.00 m over a true width of 56.40 m (from 60.00 to 73.00 m with a true width of 12.22 m has given 34.98 % of Fe(t).

Borehole NB-2A with a weighted average of 56.97 % of Fe(t) from 39.00 to 57.30 m over a true with of 14.02 m.

Borehole NB-3 with a weighted average of 56.37 % of Fe(t) from 24.00 to 49.00 m over a true width of 21.65 m.

Borehole NB-4 with a weighted average of 46.01 % of Fe(t) from 54.60 to 56.60 m over a true width of 1.73 m (From 32.60 to 54.60 m over a true width of 19.05 m has given a weighted average of 37.98 % of Fe(t) and from 56.60 to 61.60 m over a true width of 4.33 m has given a weighted average of 40.58 % of Fe(t)). All the boreholes on the western BHC band has given +55 % Fe(t) except NB-4. Probably the structural disturbance might have attributed for the failure of the wider mineralized zone. Due care may please be taken in and around of NB-4 while mining.

Borehole NB-5 with a weighted average of 54.7 % of Fe(t) from 47.00 to 69.00 m over a true width of 20.7 m (from 42.00 to 47.00 – true width of 4.7 m with 38.68 % of Fe(t) and 69.00 to 70.00 m – true width of 0.94 m with 42.53 % of Fe(t) and they are below 45 % cut-off and not considered for reserve calculation.

Borehole NB-6 with a weighted average of 64.72 % of Fe(t) from 17.00 to 45.00 m over a true width of 26.32 m and this borehole is the northern most borehole on the western BHC band.

Analytical result of Central band: Central BHC band is intersected by 5 boreholes i.e. NB-1 for 73.15 m, NB-1A for 42.50 m, NB-1B for 38.10 m, NB-2 with a depth of 60.00 m and NB-7 with a depth of 53.80 m and the total drilling on the central band is of 113.80 m. Due to drilling problem, NB-1, 1A and 1B have been abandoned.

Borehole NB-1 has 4 mineralised zones with a weighted average of 56.95 % of Fe(t) from 21.15 to 23.50 m over a true width of 2.21 m, 62.23 % of Fe(t) from 27.00 to 36.15 m over a true width of 8.6 m, 57.11 % of Fe(t) from 55.95 to 63.85 % of Fe(t) over a true width of 7.42 m and 59.08 % of Fe(t) from 66.30 to 67.90 m over a true width of 1.5 m.

Borehole NB-1A (prematurely closed) has three mineralized zones with a weighted average of 59.61 % of Fe(t) from 9.30 to 25.00 m over a true width of 14.76 m, 54.32 % of Fe(t) from 34.45 to 37.25 m over a true width of 2.63 m, and 49.16 % of Fe(t) from 39.45 to 42.50 m over a true width of 2.87 m.

Borehole NB-1B with a weighted average of 59.17 % of Fe(t) from 0.50 to 16.80 m over a true width of 14.12 m.

Borehole NB-2 with a weighted average of 61.36 % of Fe(t) from 5.00 to 31.50 m over a true width of 20.30 m.

Borehole NB-7 has given 2 mineralised zones – a) 57.85 % of Fe(t) from 9.50 to 29.50 m over a true width of 18.8 m, (b) 50.12 % of Fe(t) from 35.50 to 52.00 m over a true width of 15.5 m (from 29.50 to 35.50 m has given 29.18 % of Fe(t) over a true width of 5.64 m, this also less than 45 % and not taken for reserve calculation).

Borehole NB-1 and NB-1A are falling south of the fault on the central band. Borehole NB-1 with a depth of 73.15 m and NB-1A for a depth of 42.50 m.

Borehole NB-1A has given 3 mineralised zones – a) 59.61 % of Fe(t) from 9.30 to 25.00 m over a true width of 14.76 m, (b) 54.32 % of Fe(t) from 34.45 to 37.25 m over a true width of 2.63 m, (c) 49.16 % of Fe(t) from 39.45 to 42.50 m over a true width of 2.87 m. The first mineralized zone of NB-1A has taken (9.30 to 25.00 m zone) for resource calculation along with the NB-1 to match the analytical result for the central band.

Deviation test carried out by using HF acid etching method at 30 m and 60 m depth indicated that there is no deviation in angle of the boreholes NB-1, NB-1C, NB-3, NB-4, NB-5, NB-6 and NB-7.

d) Resource Estimation

Western band comprises of the borehole NB-1C, 2A, 3, 4, 5 & 6 for a strike length of 1470 m and central band comprises of NB-7, 2, 1 and 1A for a strike length of 620 m (north of the fault is 400 m and south of the fault is 220 m). From NB-1 to fault plane (northward) for a strike length of 100 m on the central band, reserve could not be calculated (variable width and no analytical back up). The resource estimated for the bands are given in Annexure-VI.

i) Resource/grade for western band:

Borehole NB-1C has given a resource of 29,44,080 tonnes with a grade of 57.36 % for 45 % cut-off, 24,36,480 tonnes with a grade of 59.36 % for 50 % cut-off and 17,25,840 tonnes with a grade of 62.36 % for 55 % cut-off.

Borehole NB-2A has given a resource of 5,07,276 tonnes with a grade of 57.05 % for 45 % cut-off, 4,24,116 tonnes with a grade of 58.58 % for 50 % cut-off and 3,03,534 tonnes with a grade of 61.09 % for 55 % cut-off.

Borehole NB-3 has given a resource of 3,16,463 tonnes with a grade of 58.07 % for 45 % cut-off, 3,03,413 tonnes with a grade of 58.46 % for 50 % cut-off and 2,25,113 tonnes with a grade of 60.53 % for 55 % cut-off.

Borehole NB-4 has given a resource of 70,470 tonnes with a grade of 46.41 % for 45 % cut off only. However 37.98 % Fe(t) over a true width of 19.05 m and 40.58 % of Fe(t) over a true width of 4.33 m have been inferred. Due care should be taken while mining the north and south of NB-4. Failure may be due to old working/erosion or structural disturbance.

Borehole NB-5 has given a resource of 6,82,440 tonnes with a grade of 51.95 for 45 % cut off, 5,27,340 tonnes with a grade of 53.63 for 50 % cut off and 3,41,220 tonnes with a grade of 59.5 for 55 % cut off.

Borehole NB-6 has given a reserve of 11,03,677.7 tonnes with a grade of 65.56 for 45 % and 50 % cut off and 10,62,800.7 tonnes with a grade of 66.16 % for a 55 % cut off.

A total of 56,24,407 tonnes with a grade of 56.07 % for a 45 % cut off, 47,95,027 tonnes with a grade of 59.12 for 50 % cut off and 36,58,508 tonnes with a grade of 69.93 have been estimated for western band.

ii) Resource/grade for Central Band:

Borehole NB-1 & 1A fall south of the fault and NB-2 and 7 fall north of the fault.

Borehole NB-1 is prematurely closed (drilling problem) and the first zone of NB-1A is taken for the reserve calculation to cover the central band from east to west. Borehole NB-1 has given a reserve of 6,51,420 tonnes with a grade of 57.97 % for 45 % cut-off, 6,09,543 tonnes with a grade of 60.23 % for 50 % cut-off and 5,87,829 tonnes with a grade of 60.88 % for 55 % cut-off.

Borehole NB-1A (mineralized zone from 9.30 to 25.00 (true width 14.76 m) has been taken up for reserve calculation of central band along with NB-1 beyond depth of 67.90 m. Borehole NB-1A has given a reserve of 4,87,014 tonnes with a grade of 59.08 % for 45 % cut-off, 4,87,014 tonnes with a grade of 59.08 % for 50 % cut-off and 4,55,994 tonnes with a grade of 59.61 % for 55 % cut-off.

Borehole NB-2 has given a reserve of 7,36,313 tonnes with a grade of 62.05 % for 45 % cut-off, 6,51,131 tonnes with a grade of 63.65 % for 50 % cut-off and 6,22,256 tonnes with a grade of 64.12 % for 55 % cut-off.

Borehole NB-7 has given 7,06,357 tonnes with a grade of 55.66 % of Fe(t) for 45 % cut-off, 5,89,584 tonnes with a grade of 56.45 % of Fe(t) for 50 % cut-off and 3,93,047 tonnes with a grade of 58.88 % of Fe(t) for 55 % cut-off.

Western band has given a reserve of 56,24,407 tonnes with a grade of 56.07 % Fe(t) for 45 % cut-off, 47,95,027 tonnes with a grade of 59.12 % Fe(t) for 50 % cut-off and 36,58,508 tonnes with a grade of 61.93 % Fe(t) for 55 % cut-off.

Central band has given a reserve of 25,81,106 tonnes with a grade of 58.67 % of Fe(t) for 45 % cut-off, 23,37,272 tonnes with a grade of 59.98 % of Fe(t) for 50 % cut-off and 20,59,126 tonnes with a grade of 60.87 % of Fe(t) for 55 % cut-off.

Finally, the study area has given a reserve of (western and eastern bands) 82,05,513 tonnes with a grade of 57.37 % of Fe(t) for 45 % cut-off, 71,32,299 tonnes with a grade of 59.55 % of Fe(t) for 50 % cut-off and 57,17,634 tonnes with a grade of 61.40 % of Fe(t) for 55 % cut-off.

Table-3 Reserve estimation for NMDC Block

Mineralised band	**Reserve with grade (tones /percentage)**		
	45 % cut-off	**50 % cut-off**	**55 % cut-off**
WESTERN			
1C	29,44,080 / 57.36	24,36,480 / 59.36	17,25,840 / 62.36
2A	5,07,276 / 57.05	4,24,116 / 58.58	3,03,534 / 61.09
3	3,16,463 / 58.09	3,03,413 / 58.46	2,25,113 / 60.53
4	70,470 / 46.41	-	-
5	6,82,440 / 51.95	5,27,340 / 53.63	3,41,220 / 59.50
6	11,03,678 / 65.56	11,03,678 / 65.56	10,62,801 / 66.16
Total	**56,24,407 / 56.07**	**47,95,027 / 59.12**	**36,58,508 / 61.93**
CENTRAL			
2	7,36,313 / 62.05	6,51,131 / 63.65	6,22,256 / 64.12
7	7,06,359 / 55.66	5,89,584 / 56.95	3,93,047 / 58.88
1	6,51,420 / 57.90	6,09,543 / 60.23	5,87,829 / 60.88
1A	4,87,014 / 59.08	4,87,014 / 59.08	4,55,994 / 59.61
TOTAL	**25,81,106 / 58.67**	**23,37,272 / 59.98**	**20,59,126 / 60.87**
Band wise			
Western	**56,24,407 / 56.07**	**47,95,027 / 59.12**	**36,58,508 / 61.93**
Central	**25,81,106 / 58.67**	**23,37,272 / 59.98**	**20,59,126 / 60.87**
Total	**82,05,513 / 57.37**	**71,32,299 / 59.55**	**57,17,634 / 61.40**

IV. SUMMARY AND CONCLUSIONS

1. The study area falls under the Survey of India toposheet No.57 A/12 with mineralized western and central BHC band and non-mineralised eastern BHC band.
2. The regional trends is of NNW-SSE dipping 50^{o} to sub-vertical towards easterly.
3. The litho-package is of metabasalt, tuff, phyllite, banded haematite chert and ferruginous shale/shale. Banded haematite chert is observed as mineralized (>45 % of Fe(t).
4. Drilling has established a strike length of 1470 m of mineralized banded haematite chert on the western band and 620 m of mineralized BHC band on the central band (either side of the fault).
5. Analytical results of bedrock/chip sample (8 profiles) reveals the Fe(t) content ranging from 47.74 % to 64.60 % and one profile gives 44.28 % of Fe(t).
6. Analytical result of trenches on the western band ranging from 45.40 % to 63.38 % of Fe(t) and on the central band excavated north of the fault ranging from 52.87 % to 63.89 % of Fe(t) content.
7. Analytical result of core samples on the western band is of 46.01 % (above 45 % cut-0ff) to 64.72 % of Fe(t) and core samples on the central band ranges from 49.16 % to 61.36 % of Fe(t).
8. The resource estimation reveals that the western banded haematite chert gives 56,24,407 tonnes with a grade of 56.07 % for 45 % cut-off, 47,95,027 tonnes with a grade of 59.12 % for 50 % cut-off and 36,58,508 tonnes with a grade of 61.93 % for 55 % cut-off. The central banded haematite chert gives 25,81,106 tonnes with a grade of 58.67 % for 45 % cut-off, 23,37,272 tonnes with a grade of 59.98 % of 50 % cut-off and 20,59,126 tonnes with a grade of 60.87 % for 55 % cut-off.
9. Finally, the study area (both western and central BHC band) has given a reserve of 82,05,513 tonnes with a grade of 57.37 % of Fe(t) for 45 % cut-off, 71,32,299 tonnes with a grade of 59.55 % of Fe(t) for 50 % cut-off and 57,17,634 tonnes with a grade of 61.40 % of Fe(t) for 55 % cut-off.

-Sd/-	-Sd/-	-Sd/-	-Sd/-
N. Subramanian	**D. D. Raju**	**E. Hanumantha Rao**	**Mohamed Ahmed**
Geologist (Sr.)	Geologist (Sr.	Geologist (Jr.)	Geologist (Sr.)

Approved by
-Sd/-
(**Dy. Director General)**
GSI, SR, Hyderabad

REFERENCES

Biswas, S.K and Roy A. (1976): Geology of parts of Hospet, Sandur and Bellary Taluks, Bellary District Unpl. GSI report for the F.S. 1975-76

Mishra, R.N and Dixit R.L.N (1972): Report on Iron Ore Exploration in Kumaraswammy, Bellary District, Mysore State Unpl. GSI report for the F.S. 1967-68.

Mishra, R.N., Gopinath K, Biswas S.K., and Kotiyal P.L. (1980): Investigation for iron ore in selected mining area. Unpl. GSI report for the F.S. 1976-79.

SYNOPSIS OF WORK DONE

<table>
<tr><td>1.</td><td>Title of the report</td><td colspan="2">A FINAL REPORT ON INVESTICATION OF THE IRON ORE RESOURCE IN SELECTED FREEHOLD AREAS IN NMDC BLOCK IN PARTS OF SANDUR SCHIST BELT, BELLARY DISTRICT, KARNATAKA (E-I STAGE)</td></tr>
<tr><td>2.</td><td>Item No.</td><td colspan="2">MIE/SR/KG/2005/028</td></tr>
<tr><td>3</td><td>Field Season</td><td colspan="2">2005 – 2008</td></tr>
<tr><td>4</td><td>Date of commencement</td><td colspan="2">22.12.2005</td></tr>
<tr><td>5</td><td>Date of completion</td><td colspan="2">04.11.2008</td></tr>
<tr><td>6</td><td>Officers Associated with investigation and no. of days spent in the field</td><td colspan="2">N. Subramanian -81 days
D. D. Raju -46 days
E. Hanumantha Rao -143 days
Md. Ahmed -140 day</td></tr>
<tr><td>7</td><td colspan="3">Quantum of work done
<table>
<tr><th>Nature of work</th><th>Work Done</th></tr>
<tr><td>Detailed Mapping (1:2000 scale) (sq. km)</td><td>1.00</td></tr>
<tr><td>LSM on 12,500 scale (sq. km)</td><td>5.25</td></tr>
<tr><td>Trenching (cu. m)</td><td>270</td></tr>
<tr><td>Drilling (m)</td><td>679.55</td></tr>
<tr><td>SMPL (nos.)
BRS/Chip
PTS
CS</td><td>
81
131
417</td></tr>
</table></td></tr>
<tr><td>8</td><td>Chemical Analysis</td><td colspan="2">XRF : 548 nos.</td></tr>
<tr><td>9</td><td>Elements analysed</td><td colspan="2">Major oxides for PTS and CS</td></tr>
<tr><td>10.</td><td>Expenditure (Rs.)
(1) Wages
(2) POL
(3) Misc.</td><td colspan="2">
Rs. 3,70,648.45/-
Rs. 92,346.63/-
Rs. 93,220.00/-</td></tr>
<tr><td>11.</td><td>Other information if any</td><td colspan="2">Nil</td></tr>
</table>

-Sd/-
N. Subramanian
Geologist (Sr.)

-Sd/-
D. D. Raju
Geologist (Sr.)

-Sd/-
E. Hanumantha Rao
Geologist (Jr.)

-Sd/-
Mohamed Ahmed
Geologist (Sr.)

Approved by
-Sd/-
(**Dy. Director General)**
GSI, SR, Hyderabad

ANNEXURE-I

ANALYTICAL RESULTS OF BEDROCK/CHIP SAMPLES, NMDC BLOCK

Sl. No.	Sample No.	Fe Total	Fe_2O_3	FeO	Al_2O_3	SiO_2	TiO_2	MnO	P_2O_5
1	L-1/1	40.88	58.40	2.16	0.53	40.83	<0.05	0.07	0.10
2	L-1/2	62.16	88.80	ND	1.73	3.01	0.12	2.71	0.05
3	L-1/3	53.76	76.80	ND	2.07	3.47	<0.05	9.19	<0.05
4	L-1/4	50.96	72.80	ND	3.67	10.87	0.06	6.45	<0.05
5	L-1/5	48.16	68.80	0.36	5.47	15.61	0.74	0.48	0.08
6	L-1/6	56.00	80.00	1.80	4.67	5.26	0.19	0.36	0.13
7	L-1/7	58.24	83.20	ND	3.42	4.12	0.05	0.93	0.10
8	L-1/8	61.04	87.20	1.08	2.30	3.00	0.08	0.27	0.13
9	L-1/9	61.88	88.40	1.08	2.37	3.38	0.07	0.33	0.10
10	L-1/10	59.36	84.80	3.24	2.70	3.67	0.06	0.17	0.10
11	L-2/11	54.88	78.40	1.80	6.51	4.23	0.07	0.15	0.05
12	L-2/12	53.76	76.80	2.52	4.67	5.01	0.06	1.29	0.13
13	L-2/13	58.80	84.00	1.80	3.82	2.61	0.05	0.78	0.13
14	L-2/14	57.12	81.60	2.16	4.47	3.75	0.24	0.12	0.13
15	L-2/15	57.68	82.40	1.44	3.55	5.14	0.12	0.09	0.10
16	L-3/16	47.04	67.20	0.72	2.89	24.93	0.12	0.31	<0.05
17	L-3/17	40.32	57.60	2.16	0.72	39.92	<0.05	<0.05	<0.05
18	L-3/18	30.80	44.00	1.44	0.92	52.08	<0.05	<0.05	<0.05
19	L-3/19	34.72	49.60	2.52	0.66	48.90	<0.05	<0.05	<0.05
20	L-3/20	39.76	56.80	0.72	2.37	37.58	0.15	<0.05	0.05
21	L-3/21	17.92	25.60	1.80	0.86	72.35	<0.05	<0.05	<0.05
22	L-3/22	36.40	52.00	1.08	2.88	42.54	0.17	0.05	0.05
23	L-3/23	42.00	60.00	1.80	2.88	32.97	0.21	0.05	0.05
24	L-3/24	60.48	86.40	1.08	2.56	3.86	0.08	0.16	0.10
25	L-3/25	58.24	83.20	1.80	4.17	5.63	0.17	0.10	0.10
26	L-3/26	49.28	70.40	ND	4.49	5.92	0.20	4.72	0.13
27	L-3/27	59.36	84.80	1.44	3.46	5.65	0.23	0.08	0.13
28	L-3/28	51.52	73.60	0.36	4.29	7.18	0.37	0.70	0.10
29	L-3/29	52.28	74.40	ND	2.82	4.83	0.08	7.35	0.13
30	L-4/30	34.72	49.60	2.16	0.58	45.47	0.06	<0.05	0.07
31	L-4/31	44.24	63.20	2.16	0.64	31.43	0.16	<0.05	0.05
32	L-4/32	35.84	51.20	2.16	0.58	47.49	0.05	<0.05	<0.05
33	L-4/33	32.48	46.40	2.52	0.32	52.55	<0.05	<0.05	<0.05
34	L-4/34	33.04	47.20	3.24	0.45	50.32	<0.05	<0.05	0.05
35	L-4/35	43.68	62.40	2.16	0.45	35.34	0.06	<0.05	0.05
36	L-4/36	33.60	48.00	2.16	0.58	49.64	<0.05	0.05	0.05
37	L-4/37	28.00	40.00	2.16	0.19	57.40	<0.05	<0.05	0.05
38	L-4/38	61.04	87.20	2.16	1.99	6.51	0.05	0.10	<0.05
39	L-4/39	63.28	90.40	1.80	3.33	2.17	0.06	0.10	0.05
40	L-4/40	64.40	92.00	1.80	0.51	1.81	0.14	0.05	0.05
41	L-4/41	63.84	91.2	1.44	0.83	1.08	0.013	0.09	0.05

Sl. No.	Sample No.	Fe Total	Fe_2O_3	FeO	Al_2O_3	SiO_2	TiO_2	MnO	P_2O_5
42	L-4/42	66.64	95.2	1.44	0.77	2.06	0.07	0.06	0.05
43	L-4/43	62.16	88.8	2.52	0.51	6.23	0.09	0.1	0.05
44	L-4/44	61.6	88	2.52	1.03	2.72	0.07	0.09	0.05
45	L-4/45	38.08	54.4	3.6	0.88	40.89	0.08	<0.05	<0.05
46	L-5/46	33.04	47.20	0.72	4.23	42.15	0.39	<0.05	<0.05
47	L-5/47	44.80	64.00	1.08	4.29	27.74	0.34	<0.05	<0.05
48	L-5/48	44.80	64.00	144.00	3.27	28.48	0.28	<0.05	<0.05
49	L-5/49	43.96	62.80	0.36	3.14	33.09	0.25	<0.05	<0.05
50	L-5/50	51.52	73.60	1.08	1.86	18.86	0.11	<0.05	<0.05
51	L-5/51	53.83	76.90	0.36	1.22	21.06	0.06	<0.05	<0.05
52	L-5/52	56.56	80.00	1.08	0.77	12.19	<0.05	<0.05	<0.05
53	L-5/53	58.80	84.00	1.44	0.83	14.24	<0.05	<0.05	0.05
54	L-5/54	64.40	92.00	1.08	1.28	4.14	<0.05	<0.05	0.05
55	L-5/55	59.92	85.60	1.08	1.86	11.97	0.10	<0.05	0.05
56	L-5/56	60.48	86.40	ND	0.96	10.01	0.10	<0.05	0.05
57	L-5/57	60.48	86.40	0.36	1.60	10.25	0.14	<0.05	0.05
58	L-5/58	61.60	88.00	1.08	0.90	10.37	0.12	<0.05	0.05
59	L-5/59	64.96	92.80	ND	0.77	2.78	0.08	1.34	0.05
60	L-5/60	67.20	96.00	1.62	0.83	1.68	0.07	0.23	0.05
61	L-5/61	66.64	95.20	0.36	1.35	1.54	0.10	0.19	0.05
62	L-5/62	66.08	94.40	0.36	1.41	1.53	0.13	0.22	<0.05
63	L-6/63	55.58	79.40	ND	2.32	3.54	0.08	5.97	<0.05
64	L-6/64	59.64	85.20	ND	1.37	1.67	0.21	4.66	<0.05
65	L-7/65	35.28	50.40	ND	0.85	40.87	0.10	1.59	<0.05
66	L-7/66	49.14	70.20	ND	1.31	12.45	0.07	7.64	<0.05
67	L-7/67	58.80	84.00	ND	1.86	4.18	0.08	2.45	<0.05
68	L-8/68	62.72	89.60	ND	0.86	0.50	0.09	2.28	0.05
69	L-8/69	60.76	86.80	0.72	1.37	1.97	0.21	0.95	0.05
70	L-8/70	66.50	95.00	0.72	0.28	3.12	0.05	0.79	<0.05
71	L-9/1	61.60	88.00	1.80	4.47	5.43	0.18	<0.05	<0.05
72	L-9/2	64.96	92.80	0.72	2.73	3.42	0.11	<0.05	<0.05
73	L-9/3	63.84	91.20	1.44	3.27	3.83	0.14	<0.05	<0.05
74	L-9/4	62.72	89.60	1.80	2.60	2.79	0.07	<0.05	<0.05
75	L-9/5	67.20	96.00	1.44	1.73	1.90	0.11	<0.05	<0.05
76	L-9/6	66.64	95.20	0.72	1.73	1.85	<0.05	<0.05	<0.05
77	L-9/7	67.13	95.90	0.72	1.53	1.55	0.09	0.05	<0.05
78	L-9/8	66.99	96.70	1.08	2.27	0.86	0.09	0.05	0.07
79	L-9/9	65.66	93.60	0.72	1.67	1.37	0.19	0.10	0.06
80	L-9/10	64.26	91.80	0.36	0.87	1.47	<0.05	0.10	0.06
81	L-9/11	60.48	86.40	0.72	4.53	5.73	0.14	0.70	0.06

ANNEXURE-II

ANALYTICAL RESULTS OF TRENCH SAMPLES, NMDC BLOCK

Sample No.	Fe Total	Fe_2O_3	FeO	Al_2O_3	SiO_2	TiO_2	MnO	P_2O_5
Trench No. NT-1								
NT-1/1	60.64	86.64	6.48	4.20	2.21	0.13	0.58	<0.05
NT-1/2	48.20	68.86	ND	2.99	2.02	0.09	9.00	<0.05
NT-1/3	54.11	77.30	0.90	5.22	6.88	0.82	1.59	<0.05
NT-1/4	59.74	85.34	1.08	2.55	1.89	0.09	1.25	<0.05
NT-1/5	61.54	87.90	2.16	1.85	2.66	0.06	0.46	<0.05
NT-1/6	61.14	87.34	0.72	2.10	1.62	0.06	1.54	<0.05
NT-1/7	51.34	73.34	ND	2.67	1.75	0.07	2.28	<0.05
NT-1/8	60.03	85.61	ND	2.55	1.82	0.05	5.22	0.05
NT-1/9	56.53	80.75	0.72	3.25	3.22	0.10	1.47	0.07
NT-1/10	52.68	75.11	1.44	6.27	5.73	0.45	0.27	0.10
NT-1/11	45.27	64.67	2.16	11.67	11.71	<0.05	0.15	0.07
NT-1/12	44.93	64.18	2.34	12.93	13.81	<0.05	0.31	<0.05
NT-1/13	43.53	62.18	2.70	3.73	15.60	<0.05	0.15	<0.05
NT-1/14	45.64	65.20	ND	11.33	11.07	0.60	0.23	<0.05
NT-1/15	45.11	64.44	1.98	9.47	6.90	0.32	0.17	<0.05
NT-1/16	45.52	65.03	4.50	5.07	2.72	0.11	0.09	<0.05
NT-1/17	59.40	84.99	3.60	4.27	3.79	0.14	0.09	<0.05
NT-1/18	59.68	85.25	2.88	4.87	5.21	0.19	0.06	<0.05
NT-1/19	58.86	84.09	4.32	3.06	1.84	0.13	0.09	<0.05
NT-1/20	55.19	78.84	4.32	2.00	1.43	0.16	0.13	<0.05
NT-1/21	58.30	83.29	1.08	2.67	2.09	0.07	0.13	<0.05
NT-1/22	49.64	70.91	1.80	3.06	2.32	0.08	0.12	<0.05
NT-1/23	60.92	87.03	3.24	2.07	0.92	<0.05	0.09	<0.05
NT-1/24	46.37	66.24	ND	1.80	16.64	0.06	1.84	<0.05
NT-1/25	62.72	89.60	0.98	1.58	1.86	0.10	0.63	0.05
NT-1/26	49.98	71.40	0.36	1.80	20.45	0.09	1.42	0.05
NT-1/27	59.22	84.60	0.36	2.42	3.44	0.22	0.98	0.05
Trench No. NT-2								
NT-2/1	26.85	38.40	0.73	18.07	27.03	2.29	<0.05	<0.05
NT-2/2	19.86	28.40	2.56	18.69	35.80	2.21	<0.05	<0.05
NT-2/3	50.35	72.00	2.93	7.90	13.35	0.90	0.05	<0.05
NT-2/10	66.30	94.80	2.56	1.75	2.49	0.15	<0.05	<0.05
NT-2/11	65.74	94.00	0.36	1.21	2.68	0.16	<0.05	<0.05

Sample No	Fe Total	Fe_2O_3	FeO	Al_2O_3	SiO_2	TiO_2	MnO	P_2O_5
NT-2/4	62.10	88.80	2.20	3.39	3.35	0.32	<0.05	<0.05
NT-2/5	63.78	91.20	2.20	2.85	3.63	0.20	<0.05	<0.05
NT-2/6	64.90	92.80	2.20	2.42	3.57	0.14	<0.05	<0.05
NT-2/7	66.99	95.80	1.46	1.41	2.47	0.08	<0.05	<0.05
NT-2/8	67.13	96.00	1.46	1.14	1.65	0.07	<0.05	<0.05
NT-2/9	67.76	96.80	1.46	1.01	1.63	0.06	<0.05	<0.05
Trench No. NT-3								
NT-3/1	52.03	74.40	1.46	8.79	11.07	1.06	<0.05	<0.05
NT-3/2	48.12	68.80	4.03	2.15	28.38	0.12	<0.05	<0.05
NT-3/3	63.23	90.40	1.83	3.46	5.29	0.15	<0.05	<0.05
NT-3/4	59.31	84.80	2.56	4.13	6.13	0.20	<0.05	<0.05
NT-3/5	60.15	86.00	1.83	2.89	7.11	0.10	<0.05	<0.05
NT-3/6	63.23	90.40	1.83	2.48	3.77	0.10	<0.05	<0.05
NT-3/7	63.79	91.20	1.10	2.35	4.05	0.09	<0.05	<0.05
NT-3/8	62.11	88.80	1.46	2.45	6.30	0.15	<0.05	<0.05
NT-3/9	62.39	89.20	1.86	2.68	4.12	0.22	<0.05	<0.05
NT-3/10	58.75	84.00	1.46	2.82	11.71	0.19	<0.05	<0.05
Trench No. NT-4								
NT-4/1	43.12	61.60	ND	7.27	20.29	0.47	0.05	0.08
NT-4/2	56.48	66.40	3.24	2.53	25.47	0.06	0.07	0.07
NT-4/3	56.00	80.00	3.24	4.10	2.23	0.10	0.06	0.10
NT-4/4	61.04	87.20	0.72	2.70	3.91	0.05	<0.05	0.06
NT-4/5	61.04	87.20	1.08	3.50	4.50	0.07	0.06	<0.05
NT-4/6	59.92	85.60	1.08	3.77	5.48	0.18	0.14	0.06
NT-4/7	41.44	59.20	2.16	13.07	15.30	1.62	0.22	0.10
NT-4/8	53.20	76.00	2.15	6.40	8.37	0.27	0.76	0.13
NT-4/9	59.92	85.60	4.32	4.00	5.88	0.09	<0.05	0.07
NT-4/10	61.04	87.20	3.60	3.10	4.13	0.07	<0.05	0.10

Sample No.	Fe(t)	Fe_2O_3(t)	SiO_2	TiO_2	Al_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
Trench No. NT-5																
NT-5/1	50.83	72.62	12.81	0.61	6.87	0.12	bld	0.44	bld	bld	0.18	0.56	0.09	0.01	0.03	5.65
NT-5/ 2	48.45	69.22	13.91	0.64	8.27	0.18	bld	0.45	bld	bld	0.2	0.47	0.1	0.01	0.03	6.5
NT-5/3	53.67	76.67	10.63	0.52	4.77	0.08	bld	0.38	bld	bld	0.15	0.55	0.07	bld	0.04	6.13
NT-5/4	55.15	78.78	9.92	0.45	4.25	0.01	bld	0.44	bld	bld	0.18	0.5	0.06	bld	0.04	5.36
NT-5/5	51.32	73.31	11.43	0.5	6.32	0.15	bld	0.38	bld	bld	0.21	0.52	0.06	0.01	0.04	7.06
NT-5/6	51.00	72.86	11.16	0.62	5.92	0.12	bld	0.41	bld	bld	0.4	0.58	0.07	0.01	0.03	7.81
NT-5/7	56.93	81.33	7.78	0.43	2.49	0.08	bld	0.38	bld	bld	0.24	0.52	0.07	0.01	0.04	6.62
NT-5/8	58.99	84.27	5.32	0.21	1.9	0.06	bld	0.38	bld	bld	0.47	0.65	0.05	0.01	0.05	6.61
NT-5/9	57.51	82.15	6.34	0.23	2.64	0.07	bld	0.34	bld	bld	0.27	0.62	0.05	0.01	0.4	6.87
NT-5/10	55.59	79.42	11.98	0.16	0.88	0.18	bld	0.4	bld	bld	0.15	0.33	0.05	bld	0.04	6.39
NT-5/11	59.34	84.77	3.10	0.07	bld	0.08	bld	0.35	bld	bld	0.85	0.52	0.05	0.01	0.04	10.15
NT-5/12	58.62	83.74	5.20	0.12	1.57	0.12	bld	0.33	bld	bld	0.27	0.69	0.07	bld	0.04	7.84
NT-5/13	52.61	75.15	10.13	0.19	4.64	0.87	bld	0.44	bld	bld	0.28	0.42	0.04	0.01	0.4	7.41
NT-5/14	41.52	59.32	6.96	0.18	4.12	19.49	bld	0.45	bld	0.31	0.28	0.58	0.04	0.01	0.05	8.2
NT-5/15	41.43	59.19	16.59	0.84	10.41	3.6	bld	0.39	bld	bld	0.17	0.38	0.04	0.01	0.03	8.33
Trench No. NT-6																
NT-6/1	48.83	69.76	16.70	0.77	7.45	0.09	bld	0.45	bld	bld	0.11	0.47	0.07	0.01	0.03	4.08
NT-6/2	47.61	68.01	16.62	0.69	8.75	0.08	bld	0.42	bld	bld	0.11	0.6	0.07	0.01	0.03	4.6
NT-6/3	59.23	84.62	13.08	0.14	bld	0.05	bld	0.36	bld	bld	0.04	0.72	0.04	bld	0.04	0.9
NT-6/4	59.62	85.17	12.40	0.16	bld	0.05	bld	0.36	bld	bld	0.05	0.62	0.05	bld	0.04	1.08
NT-6/5	39.13	55.99	41.91	0.12	bld	0.02	bld	0.33	bld	bld	0.04	0.36	0.03	bld	0.04	1.14
NT-6/6	61.17	87.39	10.14	0.14	bld	0.04	bld	0.39	bld	bld	0.07	0.71	0.05	bld	0.04	1.01

Sample No.	Fe(t)	Fe_2O_3(t)	SiO_2	TiO_2	Al_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NT-6/7	61.90	88.43	8.94	0.16	bld	0.04	bld	0.39	bld	bld	0.06	0.57	0.05	bld	0.05	1.29
NT-6/8	60.63	86.61	10.07	0.19	0.13	0.04	bld	0.4	bld	bld	0.09	0.71	0.05	0.01	0.04	1.65
NT-6/9	57.13	81.61	15.19	0.14	bld	0.05	bld	0.41	bld	bld	0.08	0.71	0.04	bld	0.04	1.72
NT-6/10	41.43	59.18	39.63	0.02	bld	0.03	bld	0.38	bld	bld	0.09	0.33	0.04	bld	0.04	0.25
NT-6/11	58.04	82.91	12.29	0.19	0.65	0.04	bld	0.42	bld	bld	0.14	0.58	0.06	0.01	0.04	2.66
NT-6/12	57.60	82.29	14.94	0.08	bld	0.04	bld	0.34	bld	bld	0.09	0.33	0.02	bld	0.04	1.81
NT-6/13	62.37	89.10	7.09	0.13	bld	0.06	bld	0.37	bld	bld	0.11	0.4	0.03	bld	0.04	2.66
NT-6/14	58.83	84.04	12.59	0.16	bld	0.07	bld	0.39	bld	bld	0.08	0.29	0.03	bld	0.04	2.3
NT-6/E1	28.79	41.13	51.99	0.38	3.1	0.03	bld	0.59	bld	bld	0.08	0.13	0.06	bld	0.03	2.47
NT-6/E2	32.65	46.64	47.42	0.35	2.37	0.03	bld	0.63	bld	bld	0.08	0.06	0.04	bld	0.04	2.33
Trench No. NT-3/E																
NT-3/E1	55.80	79.72	10.04	0.57	5.5	0.06	bld	0.34	bld	bld	0.09	0.36	0.05	0.01	0.03	3.22
NT-3/E2	61.59	87.99	6.37	0.34	1.86	0.06	bld	0.35	bld	bld	0.07	0.44	0.45	0.01	0.04	2.01
NT-3/E3	32.43	46.33	26.59	1.31	17.48	0.09	bld	0.32	bld	bld	0.1	0.21	0.03	0.01	0.01	7.5
NT-3/E4	63.30	90.43	6.74	0.17	bld	0.06	bld	0.39	bld	bld	0.07	0.41	0.03	bld	0.04	1.65
Trench No. NT-4/E																
NT-4/E1	57.26	81.80	7.46	0.45	3.93	0.09	bld	0.36	bld	bld	0.15	0.39	0.07	0.01	0.03	5.24
NT-4/E2	53.19	75.99	10.34	0.51	5.39	0.35	bld	0.36	bld	bld	0.25	0.45	0.04	0.01	0.03	6.26
NT-4/E3	51.02	72.88	11.93	0.61	5.28	0.13	bld	0.35	bld	bld	0.21	0.3	0.03	0.01	0.03	8.23
NT-4/E4	51.69	73.84	12.43	0.64	5.51	0.12	bld	0.37	bld	bld	0.21	0.38	0.04	0.01	0.03	6.41
Trench No. NT-7																
NT-7/1	56.83	81.19	9.63	0.76	2.39	0.24	bld	0.77	bld	bld	0.15	0.97	0.03	0.01	0.05	3.8
NT-7/2	58.66	83.80	8.61	0.68	1.74	0.27	bld	0.73	bld	bld	0.13	0.81	0.03	0.01	0.06	3.12
NT-7/3	63.00	90.00	6.31	0.53	bld	0.48	bld	0.73	bld	bld	0.13	0.56	0.03	0.01	0.06	1.15

Sample No.	Fe(t)	Fe_2O_3(t)	SiO_2	TiO_2	Al_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NT-7/4	65.81	94.02	2.50	0.1	bld	0.29	bld	0.72	bld	bld	0.08	0.58	0.03	bld	0.07	1.6
NT-7/5	64.28	91.83	4.02	0.18	bld	0.61	bld	0.75	bld	bld	0.09	0.59	0.02	0.01	0.07	1.82
NT-7/6	65.81	94.02	3.18	0.13	bld	0.37	bld	0.73	bld	bld	0.08	0.59	0.03	0.01	0.07	0.78
NT-7/7	65.75	93.93	2.29	0.08	bld	57	bld	0.72	bld	bld	0.06	0.51	0.02	bld	0.07	1.74
NT-7/8	63.23	9034.00	4.32	0.06	bld	1.5	bld	0.72	bld	bld	0.11	0.42	0.02	bld	0.08	2.42
NT-7/9	66.67	95.24	1.42	0.09	bld	0.47	bld	0.75	bld	bld	0.07	0.45	0.02	bld	0.06	1.42
NT-7/10	60.89	86.99	5.65	0.44	bld	0.86	bld	1.67	bld	bld	0.83	0.65	0.03	0.01	0.07	2.79
NT-7/11	64.06	91.51	3.72	0.21	bld	0.83	bld	0.74	bld	bld	0.09	0.65	0.03	bld	0.07	2.14
NT-7/12	63.15	90.22	5.05	0.25	bld	0.47	bld	0.73	bld	bld	0.08	0.73	0.03	0.01	0.07	2.35
NT-7/13	65.83	94.04	3.48	0.25	bld	0.18	bld	0.78	bld	bld	0.12	0.71	0.03	bld	0.07	0.33
Trench No. NT-8																
NT-8/1	55.14	78.77	5.81	0.3	2.09	8.8	bld	0.8	bld	bld	0.08	0.92	0.02	0.04	0.07	2.29
NT-8/2	61.38	87.68	4.49	0.2	bld	2.93	bld	0.75	bld	bld	0.08	0.87	0.03	0.01	0.07	2.88
NT-8/3	38.23	54.62	21.55	2.01	10.14	2.5	bld	0.73	bld	bld	0.14	0.78	0.03	0.01	0.02	7.46
NT-8/4	42.52	60.74	17.14	2.06	9.23	1.64	bld	0.76	bld	bld	0.18	0.58	0.03	0.01	0.02	7.6
NT-8/5	41.31	59.01	21.78	2.29	11.46	0.75	bld	0.88	bld	bld	0.15	1.13	0.04	0.01	0.02	2.47
NT-8/6	41.66	59.52	16.99	1.78	9.46	1.5	bld	0.78	bld	bld	0.26	0.75	0.05	0.01	0.03	8.86
NT-8/7	30.03	42.90	17.68	1.93	11.18	14.76	0.08	0.8	bld	0.31	0.13	0.61	0.03	0.02	0.03	9.53
NT-8/8	26.97	38.53	17.91	2.01	12.19	25.67	0.01	0.91	bld	0.66	0.14	1	0.03	0.02	0.03	0.88
NT-8/9	21.19	30.27	14.95	1.48	11.15	27.26	0.2	0.77	bld	0.65	0.16	0.93	0.03	0.04	0.04	12.06
NT-8/10	28.01	40.01	12.57	1.26	9.06	24.69	bld	0.79	bld	0.43	0.15	0.63	0.03	0.05	0.05	10.27
NT-8/E1	50.61	72.31	6.95	0.28	2.76	9.79	bld	0.78	bld	bld	0.07	0.71	0.02	0.06	0.07	6.19
NT-8/E2	58.14	83.06	8.44	0.4	bld	3.11	bld	0.79	bld	bld	0.06	0.69	0.03	0.01	0.07	3.33

ANNEXURE-III

DETAILED LITHOLOG OF BOREHOLES DRILLED IN NMDC BLOCK

Borehole No. NB-1C

B.H. No NB-1C
R.L 925 m
Commencement 24.3.2008
Bearing N65E/ S65W
Angle 60 Deg
Closure 8.06.2008

Depth (m)		Length of the Run (m)	Actual run length (m)	Core Recovery (%)	Lithology
From	To				
0.00	0.50	0.50	0.50	100	Cherry red haematite ore
0.50	1.00	0.50	0.50	100	Cherry red haematite ore
1.00	1.50	0.50	0.50	100	Cherry red haematite ore
1.50	2.00	0.50	0.50	100	Cherry red haematite ore
2.00	2.50	0.50	0.50	100	Cherry red haematite ore
2.50	3.00	0.50	0.50	100	Cherry red haematite ore
3.00	3.60	0.60	0.60	100	Cherry red haematite ore
3.60	4.00	0.40	0.40	100	Cherry red haematite ore
4.00	4.45	0.45	0.45	100	Cherry red haematite ore
4.45	5.00	0.55	0.55	100	Cherry red haematite ore
5.00	5.35	0.35	0.35	100	Cherry red haematite ore
5.35	6.00	0.65	0.65	100	Cherry red haematite ore
6.00	6.65	0.65	0.65	100	Cherry red haematite ore
6.65	7.35	0.70	0.50	70	Cherry red haematite ore (Powdery)
7.35	7.90	0.55	0.55	100	Cherry red haematite ore (Powdery)
7.90	8.90	1.00	1.00	100	Cherry red haematite ore (Powdery)
8.90	9.50	0.60	0.60	100	Cherry red haematite ore
9.50	10.05	0.55	0.55	100	Cherry red haematite ore
10.05	10.65	0.60	0.60	100	Cherry red haematite ore
10.65	11.15	0.50	0.50	100	Cherry red haematite ore
11.15	11.65	0.50	0.50	100	Cherry red haematite ore
11.65	12.30	0.65	0.65	100	Cherry red haematite ore
12.30	13.00	0.70	0.70	100	Cherry red haematite ore
13.00	13.40	0.40	0.40	100	Cherry red haematite ore
13.40	14.00	0.60	0.60	100	Cherry red haematite ore
14.00	14.60	0.60	0.60	100	Cherry red haematite ore
15.30	16.00	0.70	0.70	100	Cherry red haematite ore
16.00	16.30	0.30	0.30	100	Cherry red haematite ore
16.30	17.00	0.70	0.60	85 %	Cherry red haematite ore
17.00	17.40	0.40	0.40	75 %	Cherry red haematite ore
17.40	18.00	0.60	0.60	100	Cherry red haematite ore
18.00	18.30	0.30	0.30	100	Cherry red haematite ore

Depth (m)		Length of the Run (m)	Actual run length (m)	Core Recovery (%)	Lithology
From	To				
19.00	19.50	0.50	0.50	100	Cherry red haematite ore
19.50	20.00	0.50	0.50	100	Cherry red haematite ore
20.00	20.50	0.50	0.50	100	Cherry red haematite ore
20.50	21.00	0.50	0.50	100	Cherry red haematite ore
21.00	21.60	0.60	0.60	100	Cherry red haematite ore
21.60	22.05	0.45	0.45	100	Cherry red haematite ore
22.05	22.75	0.70	0.70	100	Cherry red haematite ore
22.75	23.05	0.30	0.30	100	Cherry red haematite ore
23.05	23.50	0.45	0.45	100	Cherry red haematite ore
23.50	24.05	0.55	0.55	100	Cherry red haematite ore
24.05	24.70	0.65	0.65	100	Cherry red haematite ore
24.70	25.50	0.80	0.80	100	Cherry red haematite ore
25.50	26.20	0.70	0.70	100	Cherry red haematite ore
26.20	27.00	0.80	0.80	100	Cherry red haematite ore
27.00	27.60	0.60	0.60	100	Cherry red haematite ore
27.60	28.00	0.40	0.40	100	Phyllitic soil
28.00	28.60	0.60	0.60	100	Phyllitic soil
28.60	29.00	0.40	0.40	100	Cherry red haematite ore
29.00	29.70	0.70	0.70	100	Cherry red haematite ore
29.70	30.10	0.40	0.40	100	Cherry red haematite ore
30.10	31.00	0.90	0.90	100	Cherry red haematite ore
31.00	31.70	0.70	0.70	100	Cherry red haematite ore
31.70	32.50	0.80	0.80	100	Cherry red haematite ore
32.50	33.10	0.60	0.60	100	Cherry red haematite ore
33.10	34.00	0.90	0.90	100	Cherry red haematite ore
34.00	34.80	0.80	0.80	100	Cherry red haematite ore
34.80	35.30	0.50	0.50	100	Cherry red haematite ore
35.30	36.00	0.70	0.70	100	Cherry red haematite ore
36.00	36.80	0.80	0.80	100	Cherry red haematite ore
36.80	37.55	0.75	0.75	100	Cherry red haematite ore
37.55	38.15	0.60	0.60	100	Cherry red haematite ore
38.15	39.00	0.85	0.85	100	Cherry red haematite ore
39.00	39.75	0.75	0.75	100	Cherry red haematite ore
39.75	40.25	0.50	0.50	100	Reddish powdery soil with haematite fragments.
40.25	41.00	0.75	0.75	100	Reddish powdery soil with less haematite fragments.
41.00	42.00	1.00	1.00	100	Cherry red haematite ore
42.00	42.90	0.90	0.90	100	Cherry red haematite ore
42.90	43.40	0.50	0.50	100	Cherry red haematite ore
43.40	44.20	0.80	0.80	100	Cherry red haematite ore
44.20	44.80	0.60	0.60	100	Cherry red haematite ore
44.80	45.60	0.80	0.80	100	Cherry red haematite ore

Depth (m)		Length of the Run (m)	Actual run length (m)	Core Recovery (%)	Lithology
From	To				
45.60	46.80	1.20	1.20	100	Cherry red haematite ore
46.80	47.80	1.00	1.00	100	Cherry red haematite ore
47.80	48.60	0.80	0.80	100	Cherry red haematite ore
48.60	49.10	0.50	0.50	100	Cherry red haematite ore
49.10	49.75	0.65	0.65	100	Cherry red haematite ore
49.75	50.75	1.00	1.00	100	Cherry red haematite ore
50.75	51.50	0.75	0.75	100	Cherry red haematite ore
51.50	52.70	1.20	1.20	100	Cherry red haematite ore
52.70	53.70	1.00	1.00	100	Cherry red haematite ore
53.70	54.50	0.80	0.80	100	Cherry red haematite ore
54.50	55.60	1.10	1.10	100	Cherry red haematite ore
55.60	56.30	0.70	0.70	100	Cherry red haematite ore
56.30	57.30	1.00	1.00	100	Cherry red haematite ore
57.30	58.10	0.80	0.80	100	Cherry red haematite ore
58.10	59.00	0.90	0.90	100	Cherry red haematite ore
59.00	60.00	1.00	1.00	100	Cherry red haematite ore
60.00	61.00	1.00	0.80	80 %	BHC siliceous
61.00	61.80	0.80	0.60	75 %	BHC siliceous
61.80	63.00	1.20	0.90	75 %	BHC with phyllite
63.00	64.00	1.00	0.80	80 %	Limonitised, carbonatised BHC
64.00	65.00	1.00	0.80	80 %	Limonitised, carbonatised BHC
65.00	67.00	2.00	0.75	38 %	Limonitised, carbonatised BHC
67.00	68.00	1.00	0.40	40 %	Limonitised, carbonatised BHC
68.00	70.25	2.25	0.90	40 %	Steel grey BHC with more of limonitisation
70.25	72.05	1.80	0.45	25 %	Limonitised & carbonatised BHC
72.05	72.75	0.70	0.70	100	Limonitised & carbonatised BHC
72.75	73.00	0.25	0.25	100	Limonitised & carbonatised BHC
73.00	74.00	1.00	0.80	80 %	Limonitised & carbonatised BHC
74.00	75.00	1.00	0.75	75 %	Limonitised & carbonatised BHC
75.00	76.00	1.00	0.70	70 %	Limonitised & carbonatised BHC
76.00	76.50	0.50	0.50	100	Limonitised & carbonatised BHC
76.50	77.00	0.50	0.50	100	Limonitised & carbonatised BHC
77.00	77.50	0.50	0.50	100	Limonitised & carbonatised BHC
77.50	78.50	1.00	7.00	70 %	Limonitised & carbonatised BHC
78.50	79.00	0.50	0.40	80 %	More of phyllite & less of BHC
79.00	80.10	1.10	1.10	100	Phyllite
Borehole closed at 0.10 m					

Borehole No. NB-3

B.H. No NB-3
R.L 863.00 m
Commencement 3.9.2007

Bearing N65°E-S65°W
Angle 60°
Closure 5.11.2007

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
0.00	**0.50**	0.50	0.01	100	Red soil (less of haematite)
0.50	1.50	1.00	1.00	100	Red soil (less of haematite)
1.50	2.50	1.00	1.00	100	Red soil / orange powder
2.50	3.00	0.50	0.50	100	Red soil / orange powder
3.00	3.50	0.50	0.50	100	Red soil /orange powder
3.50	4.00	0.50	0.50	100	Red soil /orange powder
4.00	4.50	0.50	0.50	100	Orange cherry red soil
4.50	4.80	0.30	0.30	100	Weathered /red orange soil
4.80	5.60	0.80	0.80	100	Weathered tuff/phyllite
5.60	6.10	0.50	0.50	100	Weathered phyllite
6.10	7.10	1.00	1.00	100	Weathered phyllite
7.10	7.50	0.40	0.40	100	Weathered phyllite
7.50	8.00	0.50	0.50	100	Weathered phyllite
8.00	9.00	1.00	1.00	100	Orange soil
9.00	10.00	1.00	1.00	100	Weathered phyllite
10.00	11.00	1.00	1.00	100	Weathered carbon phyllite
11.00	12.00	1.00	1.00	100	Orange soil
12.00	13.00	1.00	1.00	100	Weathered phyllite with heametite ore.
13.00	14.00	1.00	1.00	100	Weathered phyllite with magnetite ore.
14.00	15.00	1.00	1.00	100	Weathered phyllite with magnetite streak.
15.00	16.00	1.00	1.00	100	Weathered phyllite with magnetite streak.
16.00	17.00	1.00	1.00	100	Weathered phyllite with orange soil.
17.00	18.00	1.00	1.00	100	Weathered phyllite with orange soil.
18.00	19.00	1.00	1.00	100	Weathered phyllite with orange soil.
19.00	20.00	1.00	1.00	100	Oxidised phyllite
20.00	21.00	1.00	1.00	100	Weathered phyllite
21.00	22.50	1.50	1.50	100	Oxidised phyllite (core)
22.50	23.20	0.70	0.70	100	Fragments of oxidised phyllite
23.20	23.50	0.30	0.30	100	Fragments of oxidised phyllite
23.50	24.00	0.50	0.50	100	Fragments of oxidised phyllite
24.00	25.20	1.20	1.20	100	Oxidised phyllite
25.20	26.00	0.80	0.80	100	Oxidised phyllite

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
26.00	26.50	0.50	0.50	100	Mixture of orange and cherryred soil
26.50	27.00	0.50	0.50	100	Mixture of orange and cherryred soil
27.00	27.30	0.30	0.30	100	Cherry red haematite
27.30	27.60	0.30	0.30	100	Fragments of oxidised phyllite of heametite and orange soil
27.60	28.10	0.50	0.50	100	Cherry red soil
28.10	29.20	1.10	1.10	100	Red soil
29.20	30.00	0.80	0.80	100	Oxidised phyllite cherry red soil
30.00	30.50	0.50	0.50	100	Cherry red soil claye soil
30.50	31.20	0.70	0.70	100	Cherry red soil
31.20	31.80	0.60	0.60	100	Haematite powder
31.80	32.40	0.60	0.60	100	Haematite powder
32.40	33.25	0.85	0.85	100	Fragments of oxidised phyllite of haematite and orange soil
33.25	33.75	0.50	0.50	100	Cherry red soil
33.75	34.35	0.60	0.60	100	Oxidised phyllite
34.35	35.00	0.65	0.65	100	Limonitised soil
35.00	35.50	0.50	0.50	100	Fragments of oxidised phyllite
35.50	36.00	0.50	0.50	100	Fragments of oxidised phyllite
36.00	36.60	0.60	0.60	100	Fragments of oxidised phyllite
36.60	37.00	0.40	4.00	100	Admixture of meta basalt/haematite powder
37.00	38.00	1.00	1.00	100	Haematite powder
38.00	39.00	1.00	1.00	100	Haematite powder
39.00	39.50	0.50	0.50	100	Haematite powder
39.50	40.00	0.50	0.50	100	Cherry red soil
40.00	41.00	1.00	1.00	100	Cherry red soil haematite powder
41.00	41.60	0.60	0.60	100	Cherry red soil haematite powder
41.60	42.40	0.80	0.80	100	Haematite powder fragments and soil
42.40	43.00	0.60	0.60	100	Haematite powder fragments and soil
43.00	43.80	0.80	0.80	100	Blue dust and fragments
43.80	45.00	1.20	1.20	100	Blue dust and fragments
45.00	45.80	0.80	0.80	100	Haematite powder
45.80	46.80	1.00	1.00	100	Haematite powder
46.80	47.30	0.50	0.50	100	Haematite powder (dull colour)
47.30	48.00	0.70	0.70	100	Haematite powder
48.00	48.25	0.25	0.25	100	Fragments of oxidised phyllite
48.25	49.00	0.75	0.75	100	Blue dust and fragments
49.00	49.80	0.80	0.80	100	Magnetite haematite with oxidised sulphide.
49.80	50.90	1.10	1.10	100	Magnetite haematite with oxidised sulphide.

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
50.90	51.20	0.30	0.30	100	Magnetite haematite with oxidised sulphide.
51.20	52.20	1.00	1.00	100	More of magnetite & less of haematite ore
52.20	53.00	0.80	0.80	100	Limonitised and carbonatised metabasalt.
53.00	53.80	0.80	0.80	100	Limonitised and carbonatised metabasalt.
53.80	54.60	0.80	0.80	100	Limonitised and carbonatised metabasalt.
54.60	55.40	0.80	0.80	100	Limonitised and carbonatised metabasalt.
55.40	56.50	1.10	1.10	100	Limonitised and carbonatised metabasalt.
56.50	57.60	1.10	1.10	100	Limonitised meta basalt with intercalation of magnetite
57.60	58.35	0.75	0.75	100	Limonitised meta basalt
58.35	59.60	1.25	1.25	100	Limonitised meta basalt
59.60	60.35	0.75	0.75	100	Limonitised meta basalt
60.35	61.70	1.35	1.35	100	Limonitised and carbonatised metabasalt.
61.70	64.35	2.65	2.65	100	Limonitised and carbonatised metabasalt.
64.35	64.75	0.40	0.40	100	Limonitised and carbonatised metabasalt.
64.75	66.60	1.85	1.85	100	Limonitised and carbonatised metabasalt.
66.60	68.20	1.60	1.60	100	Limonitised and carbonatised metabasalt.
68.20	69.65	1.45	1.45	100	Limonitised and carbonatised metabasalt.
69.65	72.00	2.35	2.35	100	Limonitised and carbonatised metabasalt (Phyllite).
72.00	74.70	2.70	2.70	100	Limonitised and carbonatised metabasalt (Phyllite).
74.70	76.35	1.65	1.65	100	Limonitised and carbonatised metabasalt (Phyllite).
76.35	77.70	1.35	1.35	100	Limonitised and carbonatised metabasalt (Phyllite).

Borehole closed at the depth of 77.70 m.

Borehole No. NB-4

B.H. No NB-4
R.L 881.60 m
Commencement 31.12.2007

Bearing N65°E-S65°W
Angle 60°
Closure 13.02.2008

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
0.00	0.50	0.50	0.50	100	Loose brown soil with rubbles of phyllite
0.50	1.00	0.50	0.50	100	Loose brown soil with rubbles of phyllite
1.00	1.50	0.50	0.50	100	Loose brown soil with rubbles of phyllite
1.50	2.00	0.50	0.50	100	Loose brown soil with rubbles of phyllite
2.00	2.50	0.50	0.50	100	Weathered phyllite,soft broken pieces,light reddish brown colour-few BIF rubbles
2.50	3.00	0.50	0.50	100	Brownish iron soil with rubbles of phyllite
3.00	3.75	0.75	0.75	100	Brownish iron soil with rubbles of phyllite
3.75	4.75	1.00	1.00	100	Brownish iron soil with rubbles of phyllite
4.75	5.35	0.60	0.60	100	Brownish iron soil with rubbles of phyllite
5.35	6.00	0.65	0.65	100	More of phyllite & less of soil/ powder
6.00	7.00	1.00	1.00	100	Reddish brown core iron bearing phyllite
7.00	8.50	1.50	1.50	100	Reddish brown core iron bearing phyllite
8.50	9.25	0.75	0.75	100	Reddish brown core iron bearing phyllite
9.25	10.10	0.85	0.85	100	Reddish brown core iron bearing phyllite
10.10	11.00	0.90	0.90	100	Reddish brown core iron bearing phyllite
11.00	11.75	0.75	0.75	100	Reddish brown core iron bearing phyllite
11.75	13.00	1.25	1.25	100	Reddish brown core iron bearing phyllite
13.00	15.00	2.00	2.00	100	Reddish brown core iron bearing phyllite
15.00	15.65	0.65	0.65	100	Weathered phyllite, soft broken pieces, light reddish brown colour-few BIF rubbles
15.65	17.65	2.00	2.00	100	Phyllite (Weathered metambasalt /tuff)
17.65	18.00	0.35	0.35	100	Phyllite (Weathered metambasalt /tuff)
18.00	19.00	1.00	1.00	100	Phyllite (Weathered metambasalt /tuff)
19.00	20.80	1.80	1.80	100	Phyllite (Weathered metambasalt /tuff)
20.80	21.20	0.40	0.40	100	Phyllite (Weathered metambasalt /tuff)
21.20	22.20	1.10	1.10	100	Phyllite (Weathered metambasalt /tuff)
22.20	24.00	1.80	1.80	100	Phyllite (Weathered metambasalt /tuff)
24.00	24.90	0.90	0.90	100	Phyllite (Weathered metambasalt /tuff)
24.90	25.60	0.70	0.70	100	Phyllite (Weathered metambasalt /tuff)
25.60	27.15	0.55	0.55	100	Phyllite (Weathered metambasalt /tuff)
27.15	27.85	0.70	0.70	100	Phyllite (Weathered metambasalt /tuff)
27.85	28.50	0.65	0.65	100	Phyllite (Weathered metambasalt /tuff)
28.50	31.20	2.70	2.70	100	Phyllite (Weathered metambasalt /tuff)
31.20	31.50	0.30	0.30	100	Phyllite (Weathered metambasalt /tuff)

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
31.50	32.60	1.10	1.10	100	Phyllite (Weathered metambasalt /tuff)
32.60	33.25	0.65	0.65	100	32.60 to 54.60, is of BHC with 37.98 % Fe(t)
33.25	34.85	1.60	1.60	100	
34.85	35.85	1.00	1.00	100	
35.85	36.70	0.85	0.85	100	
36.70	37.85	1.15	1.15	100	
37.85	38.15	0.30	0.30	100	
38.15	39.15	1.00	1.00	100	
39.15	40.00	0.85	0.85	100	
40.00	40.55	0.55	0.55	100	
40.55	41.70	1.15	1.15	100	
41.70	43.10	1.40	1.40	100	
43.10	44.10	1.00	1.00	100	
44.10	46.00	1.90	1.90	100	
46.00	46.45	0.45	0.45	100	
46.45	48.00	1.55	1.55	100	
48.00	48.90	0.90	0.90	100	
48.90	49.60	0.70	0.70	100	
49.60	50.30	0.70	0.70	100	
50.30	51.40	1.10	1.10	100	
51.40	51.60	0.20	0.20	100	
51.60	52.20	0.60	0.60	100	
52.20	53.00	0.80	0.80	100	
53.00	54.00	1.00	1.00	100	
54.00	55.15	1.15	1.15	100	
55.15	55.85	0.70	0.70	100	BHC with 46.01 % Fe(t)
55.85	56.65	0.80	0.80	100	BHC with 46.01 % Fe(t)
56.65	58.05	1.40	1.40	100	BHC
58.05	58.75	0.70	0.70	100	BHC
58.75	60.00	0.25	0.25	100	BHC
60.00	60.50	0.50	0.50	100	BHC
60.50	61.30	0.80	0.80	100	BHC
61.30	61.85	0.55	0.55	100	BHC
61.85	63.15	1.30	1.30	100	BHC
63.15	64.30	1.15	1.15	100	BHC
64.30	65.50	1.20	1.20	100	BHC
65.50	67.40	1.90	1.90	100	Phyllite
67.40	67.50	0.10	0.10	100	Phyllite
Borehole NB-4 closed at 67.50m					

Borehole No. NB-5

B.H. No NB-5 **Bearing** N65°E-S65°W
R.L 899.90 m **Angle** 60°
Commencement 18.08.2008 **Closure** 01.11.2008

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
0.00	0.50	0.50	0.50	100	Fine shale
0.50	1.00	0.50	0.50	100	Fine shale
1.00	1.50	0.50	0.50	100	Fine shale
1.50	2.00	0.50	0.50	100	Fine shale
2.00	2.50	0.50	0.50	100	Fine shale
2.50	3.00	0.50	0.50	100	Fine shale
3.00	3.20	0.20	0.20	100	Fine shale
3.20	3.70	0.50	0.50	100	Fine shale
3.70	4.20	0.50	0.50	100	Fine shale
4.20	4.70	0.50	0.50	100	Fine shale
4.70	5.20	0.50	0.50	100	Fine shale
5.20	5.70	0.50	0.50	100	Fine shale
5.70	6.20	0.50	0.50	100	Fine shale
6.20	6.70	0.50	0.50	100	Fine shale
6.70	7.20	0.50	0.50	100	Fine shale
7.20	7.80	0.60	0.60	100	Fine shale
7.80	8.40	0.60	0.60	100	Fine shale
8.40	9.00	0.60	0.60	100	Fine shale
9.00	9.50	0.50	0.50	100	Shale
9.50	10.00	0.50	0.50	100	Fragmented shale
10.00	10.50	0.50	0.50	100	Fine ferruginous shale
10.50	11.00	0.50	0.50	100	Fine ferruginous shale
11.00	11.50	0.50	0.50	100	Fine ferruginous shale
11.50	12.00	0.50	0.50	100	Fine ferruginous shale
12.00	12.80	0.80	0.80	100	Fine ferruginous shale
12.80	13.40	0.60	0.60	100	Fine ferruginous shale (black colour)
13.40	14.10	0.70	0.70	100	Fine ferruginous shale (black colour)
14.10	15.00	0.90	0.90	100	Fragments of shale
15.00	15.70	0.70	0.70	100	Fine ferruginous shale
15.70	16.30	0.60	0.60	100	Fine ferruginous shale
16.30	17.00	0.70	0.70	100	Fine ferruginous shale
17.00	17.50	0.50	0.50	100	Ferruginous shale

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
17.50	18.50	1.00	1.00	100	Ferruginous shale
18.50	19.50	1.00	1.00	100	Ferruginous shale
19.50	20.00	0.50	0.50	100	Ferruginous shale
20.00	20.50	0.50	0.50	100	Ferruginous shale
20.50	21.00	0.50	0.50	100	Fine ferruginous shale
21.00	21.50	0.50	0.50	100	Ferruginous shale
21.50	22.00	0.50	0.50	100	Fine ferruginous shale
22.00	22.50	0.50	0.50	100	Ferruginous shale
22.50	23.00	0.50	0.50	100	Ferruginous shale
23.00	24.00	1.00	1.00	100	Ferruginous shale
24.00	24.50	0.50	0.50	100	Ferruginous shale
24.50	25.00	0.50	0.50	100	Ferruginous shale
25.00	26.00	1.00	1.00	100	Ferruginous shale
26.00	27.00	1.00	1.00	100	Shale
27.00	28.00	1.00	1.00	100	Shale
28.00	29.00	1.00	1.00	100	Shale
29.00	29.50	0.50	0.50	100	Shale
29.50	30.00	0.50	0.50	100	Ferruginous shale
30.00	30.50	0.50	0.50	100	Clay
30.50	31.25	0.75	0.75	100	Fine ferruginous shale
31.25	32.15	0.90	0.90	100	Fine ferruginous shale
32.15	33.05	0.90	0.90	100	Fine ferruginous shale
33.05	34.00	0.95	0.95	100	Ferruginous shale (core)
34.00	34.95	0.95	0.95	100	Ferruginous shale (core)
34.95	35.90	0.95	0.95	100	Ferruginous shale (core)
35.90	36.85	0.95	0.95	100	Ferruginous shale (core)
36.85	38.05	1.20	1.20	100	Ferruginous shale (core)
38.05	39.15	1.10	1.10	100	Ferruginous shale
39.15	40.60	1.45	1.45	100	Ferruginous shale
40.60	41.60	1.00	1.00	100	Ferruginous shale
41.60	42.40	0.80	0.80	100	Ferruginous shale
42.80	42.80	0.40	0.40	100	Ferruginous shale
42.80	43.50	0.70	0.70	100	Fines of haematite & BIF fragments
43.50	43.60	0.10	0.10	100	Banded haematite chert
43.60	43.80	0.20	0.20	100	Banded haematite chert
43.80	44.00	0.20	0.20	100	Banded haematite chert
44.00	44.40	0.40	0.40	100	Banded haematite chert
44.40	44.90	0.50	0.50	100	Banded haematite chert

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
44.90	45.20	0.30	0.30	100	Banded haematite chert
45.20	46.15	0.95	0.95	100	Banded haematite chert
46.15	47.00	0.85	0.85	100	Banded haematite chert
47.00	48.20	1.20	1.20	100	Banded haematite chert
48.20	49.20	1.00	1.00	100	Banded haematite chert
49.20	50.70	1.50	1.50	100	Banded haematite chert
50.70	51.70	1.00	1.00	100	Banded haematite chert
51.70	52.70	1.00	0.65	65 %	Banded haematite chert
52.70	53.50	0.80	0.80	100	Banded haematite chert (Limonitic)
53.50	54.10	0.60	0.60	100	Banded haematite chert (Limonitic)
54.10	55.00	0.90	0.90	100	Banded haematite chert (Limonitic)
55.00	57.00	2.00	0.80	40 %	Banded haematite chert
57.00	58.00	1.00	1.00	100	Cherry red haematite
58.00	59.00	1.00	1.00	100	Cherry red haematite
59.00	60.00	1.00	1.00	100	Cherry red haematite
60.00	60.50	0.50	0.50	100	Cherry red haematite
60.50	61.00	0.50	0.50	100	Cherry red haematite
61.00	62.00	1.00	1.00	100	Cherry red haematite
62.00	63.00	1.00	1.00	100	Banded haematite chert
63.00	64.00	1.00	1.00	100	Cherry red haematite
64.00	64.70	0.70	0.70	100	Cherry red haematite
64.70	64.75	0.05	0.05	100	Banded haematite chert
64.75	66.00	1.25	1.25	100	Banded haematite chert
66.00	67.25	1.25	1.25	100	Fine cherry red haematite
67.25	68.00	0.75	0.75	100	Fine cherry red haematite
68.00	69.00	1.00	1.00	100	Banded haematite chert
69.00	69.50	0.50	0.50	100	Fragments of ferruginous shale
69.50	70.00	0.50	0.50	100	Ferruginous shale
70.00	70.50	0.50	0.50	100	Ferruginous shale
70.50	71.10	0.60	0.60	100	Ferruginous shale
71.10	71.85	0.75	0.75	100	Ferruginous shale
71.85	72.50	0.65	0.65	100	Ferruginous shale
72.50	73.30	0.80	0.80	100	Ferruginous shale

Borehole NB-5 closed at 73.3 m

Borehole No. NB-6

B.H. No	NB-6	**Bearing**	S45W-N45E
R.L	887.60m	**Angle**	60°
Commencement	23.06.08	**Closure**	30.07.08.

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
0.00	0.50	0.50	0.50	100	Reddish ferruginous shale
0.50	1.00	0.50	0.50	100	Reddish ferruginous shale
1.00	2.00	1.00	1.00	100	Pinkish white powdered shale
2.00	3.00	1.00	1.00	100	Pinkish white powdered shale
3.00	3.50	0.50	0.50	100	Pinkish white powdered shale
3.50	4.30	0.80	0.80	100	Pinkish white powdered shale
4.30	5.30	1.00	1.00	100	Pinkish white powdered shale
5.30	6.00	0.70	0.70	100	Pinkish white powdered shale
6.00	7.00	1.00	1.00	100	Powdered clay
7.00	7.80	0.80	0.80	100	Powdered clay
7.80	8.80	1.00	1.00	100	Powdered clay
8.80	9.10	0.30	0.30	100	Powdered clay
9.10	9.50	0.40	0.40	100	Powdered clay
9.50	10.00	0.50	0.50	100	Powdered clay
10.00	11.00	1.00	1.00	100	Powdered clay
11.00	12.00	1.00	1.00	100	Powdered clay
12.00	13.00	1.00	1.00	100	Powdered clay
13.00	14.00	1.00	1.00	100	Powdered clay
14.00	15.00	1.00	1.00	100	Ferruginous clay (14 to 15 is clay).
15.00	17.00	2.00	2.00	100	Powdered clay
17.00	18.00	1.00	1.00	100	Fragments & powdery ore
18.00	19.00	1.00	0.60	60 %	Intercalation of phyllite &ore
19.00	20.00	1.00	1.00	100	Fines / powdery ore
20.00	20.40	0.40	0.40	100	Fines / powdery ore
20.40	20.80	0.40	0.40	100	Fines / powdery ore
20.80	21.00	0.20	0.20	100	Fines / powdery ore
21.00	21.50	0.50	0.50	100	Fines / powdery ore
21.50	22.00	0.50	0.50	100	Fines / powdery ore
22.00	22.40	0.40	0.40	100	Fines / powdery ore
22.40	23.00	0.60	0.60	100	Fines / powdery ore
23.00	24.00	1.00	1.00	100	Fines / powdery ore
24.00	24.55	0.55	0.55	100	Fines / powdery ore
24.55	25.00	0.45	0.45	100	Fines / powdery ore
25.00	25.60	0.60	0.60	100	Fines / powdery ore
25.60	26.50	0.90	0.90	100	Fines / powdery ore
26.50	27.40	0.90	0.70	78 %	Fines of cherry red ore
27.40	27.75	0.35	0.35	100	Fines of cherry red ore
27.75	28.35	0.60	0.60	100	Fines of cherry red ore

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
28.35	28.80	0.45	0.45	100	Fines of cherry red ore
28.80	29.30	0.50	0.50	100	Fines of cherry red ore
29.30	30.00	0.70	0.70	100	Fines of cherry red ore
30.00	30.60	0.60	0.60	100	Fines of cherry red ore
30.60	31.10	0.50	0.50	100	Fines of cherry red ore
31.10	31.60	0.50	0.50	100	Fines of cherry red ore
31.60	32.10	0.50	0.50	100	Fines of cherry red ore
32.10	32.60	0.50	0.50	100	Fines of cherry red ore
32.60	33.10	0.50	0.50	100	Fines of cherry red ore
33.10	33.60	0.50	0.50	100	Fines of cherry red ore
33.60	34.10	0.50	0.50	100	Fines of cherry red ore
34.10	34.75	0.65	0.65	100	Fines of cherry red ore
34.75	35.50	0.75	0.75	100	Fines of cherry red ore
35.50	36.10	0.60	0.60	100	Fines of cherry red ore
36.10	36.80	0.70	0.70	100	Fines of cherry red ore
36.80	37.60	0.80	0.80	100	Blue dust
37.60	38.40	0.80	0.80	100	Fines of cherry red ore
38.40	39.10	0.70	0.70	100	Fines of cherry red ore
39.10	40.10	1.00	1.00	100	Fines of cherry red ore
40.10	40.90	0.80	0.80	100	Fines of cherry red ore
40.90	41.60	0.70	0.70	100	Fines of cherry red ore
41.60	42.30	0.70	0.70	100	Fines of cherry red ore
42.30	42.80	0.50	0.50	100	Fines of cherry red ore
42.80	43.40	0.60	0.60	100	Fines of cherry red ore
43.40	44.00	0.60	0.60	100	Fines of cherry red ore
44.00	44.60	0.60	0.60	100	Red soil
44.60	45.20	0.60	0.60	100	Red soil
45.20	46.00	0.80	0.80	100	Fine Red soil & fragments of iron nodule
46.00	46.70	0.70	0.70	100	
46.70	47.30	0.60	0.60	100	Fine Red soil
47.30	48.00	0.70	0.70	100	Fine Red soil & fragments of iron nodule
48.00	48.70	0.70	0.70	100	Phyllite
48.70	49.30	0.60	0.60	100	Coarse fragments of phyllite
49.30	50.00	0.70	0.70	100	Orange soil
50.00	50.50	0.50	0.50	100	Fine orange soil
50.50	51.10	0.60	0.60	100	Fine orange soil
51.10	51.80	0.70	0.70	100	Fine orange soil
51.80	52.50	0.70	0.70	100	Fine orange soil
52.50	53.20	0.70	0.70	100	Fine orange soil
53.20	53.80	0.60	0.60	100	Fine orange soil
53.80	54.60	0.80	0.60	75 %	Fine orange soil
54.60	55.00	0.40	0.40	100	Fine orange soil

Borehole NB-6 closed at 55m

Borehole No. NB-7

B.H. No	NB-7	**Bearing**	N65°E-S65°W
R.L	903.90m	**Angle**	45°
Commencement	19.07.2008	**Closure**	29.08.2008

Depth (m)		**Length of the Run (m)**	**Actual run length (m)**	**Recovery (%)**	**Lithology**
From	**To**				
0.00	0.50	0.50	0.50	100	Fine ferruginous shale
0.50	1.00	0.50	0.50	100	Fine ferruginous shale
1.00	1.60	0.60	0.60	100	Fine ferruginous shale & BHC rubbles
1.60	2.00	0.40	0.40	100	Fine ferruginous shale & BHC rubbles
2.00	3.00	1.00	1.00	100	Fine ferruginous shale
3.00	4.00	1.00	1.00	100	Upto 3.20 Broken core of BHC & upto 4.0m ferru.shale
4.00	4.80	0.80	0.80	100	Fine ferruginous shale
4.80	5.40	0.60	0.60	100	Fine ferruginous shale
5.40	6.00	0.60	0.60	100	Red soil (Baking effect)
6.00	7.00	1.00	1.00	100	Red soil
7.00	7.50	0.50	0.50	100	Red soil
7.50	8.50	1.00	1.00	100	Fine ferruginous shale
8.50	9.00	0.50	0.50	100	Banded Haematite Chert
9.00	9.50	0.50	0.50	100	Banded Haematite Chert
9.50	10.00	0.50	0.50	100	Fine ferruginous shale
10.00	10.50	0.50	0.50	100	Fine BHC
10.50	11.00	0.50	0.50	100	Fine ferruginous shale
11.00	11.80	0.80	0.80	100	Fine ferruginous shale
11.80	12.40	0.60	0.60	100	Fine ferruginous shale
12.40	13.00	0.60	0.60	100	Fine ferruginous shale
13.00	13.50	0.50	0.50	100	Fine ferruginous shale
13.50	14.20	0.70	0.70	100	Fine ferruginous shale
14.20	15.00	0.80	0.80	100	Fine cherry red haematite
15.00	16.30	1.30	0.75	58 %	Fine cherry red haematite
16.30	17.00	0.70	0.70	100	Fine cherry red haematite
17.00	17.50	0.50	0.50	100	Fine cherry red haematite
17.50	18.00	0.50	0.50	100	Fine cherry red haematite
18.00	19.00	1.00	1.00	100	Fine cherry red haematite
19.00	20.00	1.00	1.00	100	Fine cherry red haematite
20.00	21.00	1.00	1.00	100	Ferruginous shale/clay
21.00	22.00	1.00	1.00	100	Ferruginous shale fine.

Depth (m)		Length of the Run (m)	Actual run length (m)	Recovery (%)	Lithology
From	To				
22.00	23.00	1.00	0.60	60 %	Ferruginous shale fine.
23.00	23.60	0.60	0.60	100	Ferruginous shale fine.
23.60	24.20	0.60	0.60	100	Ferruginous shale fine.
24.20	24.70	0.50	0.50	100	Ferruginous shale fine.
24.70	25.15	0.45	0.45	100	Ferruginous shale fine.
25.15	26.00	0.85	0.85	100	Ferruginous shale fine.
26.00	27.50	1.50	1.20	80 %	Fine ferruginous shale
27.50	28.50	1.00	1.00	100	Fine ferruginous shale
28.50	28.80	0.30	0.30	100	Fine ferruginous shale
28.80	29.50	0.70	0.70	100	Fragments of BHC
29.50	30.20	0.70	0.50	70 %	Fragments of BHC
30.20	31.00	0.80	0.40	50 %	Fine ferruginous shale
31.00	31.70	0.70	0.35	50 %	Fine ferruginous shale
31.70	32.50	0.80	0.60	75 %	Fine ferruginous shale
32.50	33.10	0.60	0.60	100	Fine ferruginous shale
33.10	34.00	0.90	0.90	100	Fine ferruginous shale
34.00	35.50	1.50	1.50	100	Meta basalt intercalated with BHC
35.50	37.00	1.50	1.50	100	Banded Haematite Chert
37.00	37.50	0.50	0.50	100	Fragments of BHC
37.50	39.30	1.80	1.80	100	Intercalated meta basalt & BHC .
39.30	40.80	1.50	1.50	100	Fragments of BHC
40.80	42.50	1.70	1.00	60 %	Fragments of BHC
42.50	44.00	1.50	0.70	50 %	Fragments of BHC
44.00	44.70	0.70	0.70	100	Fine cherry red haematite
44.70	45.70	1.00	1.00	100	Fine cherry red haematite
45.70	46.70	1.00	1.00	100	Fine cherry red haematite
46.70	47.40	7.00	0.70	100	Fragments of BHC
47.40	48.50	1.10	1.10	100	Fine cherry red haematite
48.50	49.00	0.50	0.50	100	Fine ferruginous shale
49.00	49.50	0.50	0.50	100	Carbonated BIF
49.50	50.00	0.50	0.50	100	Fine cherry red haematite
50.00	50.80	0.80	0.80	100	Fine cherry red haematite
50.80	51.30	0.50	0.50	100	Fine cherry red haematite
51.30	52.00	0.70	0.70	100	Fine cherry red haematite
52.00	52.50	0.50	0.50	100	Fine ferruginous shale
52.50	52.90	0.40	0.40	100	Fine ferruginous shale
52.90	53.80	0.90	0.90	100	Fine ferruginous shale

Borehole NB-7 closed at 53.8 m

ANNEXURE-IV

SUMMARISED LITHOLOG OF BOREHOLES, NMDC BLOCK

Boreholes No. NB-1

From (m)	To (m)	Thickness (m)	Lithology
0.00	10.55	10.55	Ferruginous shale
10.55	21.15	10.60	BHC band
21.15	23.50	2.35	Iron ore (mineralised)
23.50	27.00	3.50	BHC band
27.00	36.15	9.15	Iron ore (mineralised)
36.15	55.95	19.80	BHC band
55.95	63.85	7.90	Iron ore (mineralised)
63.85	66.30	2.45	BHC band
66.30	67.90	1.60	Iron ore (mineralised)
67.90	73.15	5.20	BHC band

Borehole closed at 73.15 m

Boreholes No. NB-1A

From (m)	To (m)	Thickness (m)	Lithology
0.00	9.30	9.30	Ferruginous phyllite
9.30	25.00	15.70	Iron ore(mineralised) 59.61 % of Fe(t)
25.00	34.45	9.45	BHC band
34.45	37.25	2.80	Iron ore(mineralised) 54.32 % of Fe(t)
37.25	39.45	2.20	BHC band
39.45	42.50	3.05	Iron ore(mineralised)49.16 % of Fe(t)

Borehole abandoned at 42.5 m

Boreholes No. NB-1B

From (m)	To (m)	Thickness (m)	Lithology
0.00	0.50	0.50	Ferruginous phyllite
0.50	16.80	16.30	Iron ore(Mineralised) 59.17 % of Fe(t)
16.80	25.60	8.80	Iron ore(Mineralised) 44.92 % of Fe(t)
25.60	38.10	12.50	BHC band with 37.36 % of Fe(t)

Borehole abandoned at 38.1 m

Boreholes No. NB-1C

From (m)	To (m)	Thickness (m)	Lithology
0.00	60.00	60.00	Iron ore (mineralised) 56.73 % of Fe(t)
60.00	77.50	17.50	BHC band(siliceous/carbonated/limonitic)
77.50	79.00	1.50	Intercalation of BHC & Phyllite
79.00	80.10	1.10	Phyllite

Borehole closed at 80.10 m

Boreholes No. NB-2A

From (m)	To (m)	Thickness	Lithology
0.00	32.40	32.40	Ferruginous phyllite(Tuff)
32.40	39.00	6.60	BHC (less than 40 % of Fe(t)
39.00	57.30	**18.30**	(mineralised) 56.97 % of Fe(t)

Borehole closed at 57.3 m

Boreholes No. NB-2

From (m)	To (m)	Thickness (m)	Lithology
0.00	5.00	5.00	Ferruginous shale with 40.38 % of Fe(t)
5.00	31.50	26.50	Iron ore (mineralised) 61.36 % of Fe(t)
31.50	60.00	28.50	Ferruginous shale

Borehole closed at 60 m

Boreholes No. NB-3

From (m)	To (m)	Thickness (m)	Lithology
0.00	24.00	24.00	Phyllite
24.00	49.00	25.00	haematite fines with 56.37 % of Fe(t)
49.00	54.60	5.60	(fine haematite ore, less than 40 % Fe(t)
54.60	77.70	23.10	Limonitised/carbonated phyllite

Borehole closed at 77.7 m

Boreholes No. NB-4

From (m)	To (m)	Thickness (m)	Lithology
0.00	32.60	32.60	Phyllite(weathered tuff)
32.60	54.60	22.00	BHC with 37.98 % of Fe(t)
54.60	56.60	2.00	Iron ore (mineralised) 46.01 % of Fe(t)
56.60	61.60	5.00	BHC with 40.58 % of Fe(t)
61.60	65.50	3.90	BHC(no analitical data)
65.50	67.50	2.00	Oxidised ferruginous phyllite

Borehole closed at 67.5 m

Boreholes No. NB-5

From (m)	To (m)	Thickness (m)	Lithology
0.00	42.00	42.00	Shale/Ferruginous shale
42.00	47.00	5.00	BHC with 38.68 % of Fe(t)
47.00	69.00	22.00	Iron ore (mineralised)54.68 % of Fe(t)
69.00	70.00	1.00	BHC with 42.53 % of Fe(t)
70.00	73.30	3.30	Ferruginous shale

Borehole closed at 73.3 m

Boreholes No. NB-6

From (m)	To (m)	Thickness (m)	Lithology
0.00	17.00	17.00	Fine ferruginous shale-clay-phyllite
17.00	45.00	28.00	Iron ore (mineralised) 64.72 % of Fe(t)
45.00	55.00	10.00	Reddish,fine ferruginous soil, phyllite fragments of iron nodule

Borehole closed at 55 m

Boreholes No. NB-7

From (m)	To (m)	Thickness (m)	Lithology
0.00	9.50	9.50	Ferruginous shale
9.50	29.50	20.00	Iron ore (mineralised) 57.85 % of Fe(t)
29.50	35.50	6.00	Ferruginous shale(29.18 % of Fe(t)
35.50	52.00	16.50	Iron ore (mineralised) 50.12 % of Fe(t)
52.00	53.80	1.80	Fine ferruginous shale

BOREHOLE:NB.7 CLOSED AT 53.8 m

ANNEXURE –V

ANALYTICAL RESULTS OF CORE SAMPLES OF NMDC BLOCK

BOREHOLE NO. NB-1

SI. No.	Sample No.	SiO_2	Al_2O_3	Fe_2O_3	FeO	Fe (t)	TiO_2	MnO	P_2O_5
1	NB-1/1	23.32	6.15	62.4	0.36	43.68	0.57	1.1	<0.05
2	NB-1/2	18.81	13.2	52	nd	36.4	1.32	2.34	0.05
3	NB-1/3	29.84	14.23	32.8	0.72	22.96	1.85	0.16	<0.05
4	NB-1/4	48.2	2.5	48.4	1.44	33.88	0.09	<0.05	<0.05
5	NB-1/5	49.67	0.77	48.7	nd	34.09	0.05	<0.05	<0.05
6	NB-1/6	50.03	0.41	48.1	0.54	33.67	<0.05	0.38	0.05
7	NB-1/7	54.05	0.58	42.8	0.54	29.96	0.06	<0.05	0.05
8	NB-1/8	52.2	0.46	46.8	0.36	32.76	<0.05	<0.05	0.05
9	NB-1/9	47.36	0.43	51.2	2.16	35.84	<0.05	<0.05	0.05
10	NB-1/10	4.92	2.69	83.2	nd	58.24	<0.05	3.82	<0.05
11	NB-1/11	25.49	2.69	68.8	nd	48.16	0.17	1.13	0.05
12	NB-1/12	51.54	0.4	47.2	nd	33.04	<0.05	<0.05	0.05
13	NB-1/13	47.71	0.41	49.6	nd	34.72	<0.05	<0.05	0.05
14	NB-1/14	2.6	2.31	81.6	nd	57.12	0.13	6.47	0.05
15	NB-1/15	1.52	1.22	91.6	nd	64.12	<0.05	3.39	<0.05
16	NB-1/16	2.8	1.03	92.4	nd	64.68	<0.05	0.8	<0.05
17	NB-1/17	5.51	0.46	88.4	nd	61.88	0.05	0.1	o.06
18	NB-1/18	35.74	0.24	53.2	0.72	37.24	0.05	0.06	0.05
19	NB-1/19	47.05	0.79	49.6	1.08	34.72	0.05	0.05	0.08
20	NB-1/20	47.7	0.36	50.8	0.72	35.56	0.07	0.05	<0.05
21	NB-1/21	45.78	2.34	42.4	6.3	29.68	0.05	0.1	0.05
22	NB-1/22	29.28	2.33	59.8	3.42	41.86	0.31	0.16	0.15
23	NB-1/23	50.17	1.04	47.8	1.08	33.46	0.35	0.07	0.05
24	NB-1/24	45.85	0.19	52.6	0.36	36.82	0.11	0.06	<0.05
25	NB-1/25	49.33	0.24	48.2	nd	33.74	<0.05	0.05	<0.05
26	NB-1/26	54.31	0.5	43.8	nd	30.66	0.05	0.33	<0.05
27	NB-1/27	36.86	0.49	51.7	0.54	36.19	<0.05	0.23	0.05
28	NB-1/28	3.33	1.03	86.8	nd	60.76	<0.05	3.42	0.05
29	NB-1/29	30.48	0.55	64.6	1.44	45.22	0.05	0.09	0.09
30	NB-1/30	30.05	1.56	90.4	nd	63.28	<0.05	1.42	0.05
31	NB-1/31	6.37	4.68	84	nd	58.8	0.1	0.56	0.05
32	NB-1/32	6.14	6.13	77.6	nd	54.32	<0.05	3.89	0.05
33	NB-1/33	59.38	0.44	38.4	0.72	26.88	0.05	0.2	0.05
34	NB-1/34	54.26	0.5	44	3.24	30.8	0.05	<0.05	<0.05
35	NB-1/35	10.44	0.97	84.4	2.52	59.08	<0.05	0.94	0.04
36	NB-1/36	63.6	0.42	34.8	1.08	24.36	0.06	<0.05	<0.05
37	NB-1/37	58.51	0.54	38.6	0.54	27.62	0.05	<0.05	<0.05
38	NB-1/38	53.6	0.63	43.6	0.54	30.52	0.07	0.11	<0.05

BOREHOLE NO. NB-1C

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-1C/1	0.00	1.00	1.00	100	3.02	0.17	bld	91.69	64.18	0.17	bld	0.56	bld	bld	0.11	1	0.57	0.01	0.05	2.64
NB-1C/2	1.00	2.00	1.00	100	3.2	0.1	bld	92.45	64.72	0.16	0.16	0.55	bld	bld	0.09	0.89	0.04	0.01	0.05	2.29
NB-1C/3	2.00	3.00	1.00	100	3.3	0.08	bld	92.1	64.47	0.18	bld	0.55	bld	bld	0.09	0.88	0.03	0.01	0.05	2.72
NB-1C/4	3.00	4.00	1.00	100	3.76	0.09	bld	91.59	64.11	0.15	bld	0.56	bld	bld	0.1	0.76	0.04	0.01	0.05	2.87
NB-1C/5	4.00	5.00	1.00	100	4.04	0.08	0.34	90.76	63.53	0.12	bld	0.55	bld	bld	0.09	0.9	0.03	0.01	0.05	3.02
NB-1C/6	5.00	6.00	1.00	100	6.77	0.13	1.24	87.26	61.08	0.13	bld	0.59	bld	bld	0.1	79	0.04	0.01	0.05	2.89
NB-1C/7	6.00	7.00	1.00	100	2.08	0.04	bld	92.8	64.96	0.1	bld	0.56	bld	bld	0.1	0.83	0.03	0.01	0.05	3.39
NB-1C/8	7.00	8.00	1.00	100	3.65	0.13	bld	91.8	64.26	0.07	bld	0.57	bld	bld	0.13	0.82	0.04	0.01	0.05	2.72
NB-1C/9	8.00	9.00	1.00	100	3.94	0.1	0.27	91.65	64.16	0.07	bld	0.68	bld	bld	0.12	0.73	0.04	0.01	0.05	2.32
NB-1C/10	9.00	10.00	1.00	100	2.8	0.11	bld	92.75	64.93	0.06	bld	0.65	bld	bld	0.11	0.92	0.04	0.01	0.06	2.48
NB-1C/11	10.00	11.00	1.00	100	0.79	0.39	bld	94.99	66.49	0.05	bld	0.49	bld	bld	0.08	1.31	0.03	bld	0.04	1.81
NB-1C/12	11.00	12.00	1.00	100	2.24	0.71	bld	92.66	64.86	0.11	bld	0.49	bld	bld	0.08	1.27	0.03	bld	0.04	2.36
NB-1C/13	12.00	13.00	1.00	100	0.41	0.03	bld	95.85	67.1	0.51	0.2	0.46	bld	bld	0.08	bld	0.04	bld	0.04	2.36
NB-1C/14	13.00	14.00	1.00	100	1.8	bld	bld	90.31	63.22	0.07	0.17	0.44	bld	bld	0.08	4.67	0.05	bld	0.04	2.36
NB-1C/15	14.00	15.00	1.00	100	1.98	0.01	bld	94.3	66.01	0.02	bld	bld	bld	bld	0.06	2.04	0.04	bld	0.05	1.49
NB-1C/16	15.00	16.00	1.00	100	3.43	0.1	bld	89.31	62.52	bld	0.07	0.59	bld	bld	0.07	5.65	0.04	bld	0.05	0.67
NB-1C/17	16.00	17.00	1.00	100	4.84	0.12	bld	85.95	60.17	0.01	bld	0.66	bld	bld	0.08	5.06	0.04	bld	0.05	3.18
NB-1C/18	17.00	18.00	1.00	100	7.32	bld	bld	84.99	59.49	bld	0.18	0.57	bld	bld	0.05	4.64	0.04	bld	0.05	2.15
NB-1C/19	18.00	19.00	1.00	100	8.27	0.02	bld	85.42	59.79	bld	0.18	0.56	bld	bld	0.04	3.92	0.04	bld	0.05	1.49
NB-1C/20	19.00	20.00	1.00	100	16.82	0.07	bld	75.64	52.95	0.11	0.19	0.62	bld	bld	0.05	4.74	0.04	bld	0.05	1.66
NB-1C/21	20.00	21.00	1.00	100	26.71	0.15	bld	67.56	47.29	0.8	bld	0.62	bld	bld	0.06	0.29	0.02	bld	0.04	3.73
NB-1C/22	21.00	22.00	1.00	100	23.3	0.04	bld	72.77	50.94	0.08	bld	0.47	bld	bld	0.04	0.95	0.02	bld	0.04	2.28
NB-1C/23	22.00	23.00	1.00	100	29.22	0.01	bld	67.47	47.23	0.07	0.23	0.46	bld	bld	0.04	0.36	0.02	bld	0.05	2.06
NB-1C/24	23.00	24.00	1.00	100	13.62	0.04	bld	82.86	58	0.11	0.25	0.56	bld	bld	0.06	0.06	0.03	bld	0.06	2.34
NB-1C/25	24.00	25.00	1.00	100	19.05	0.02	bld	77.8	54.46	0.11	0.2	0.61	bld	bld	0.06	0.08	0.03	bld	0.06	1.97
NB-1C/26	25.00	26.00	1.00	100	26.3	0.03	bld	46.84	32.79	0.06	bld	0.51	bld	bld	0.05	bld	0.02	bld	0.06	26.12
NB-1C/27	26.00	27.00	1.00	100	33.85	0.05	bld	64.7	45.29	0.08	bld	0.47	bld	bld	0.03	0.16	0.02	bld	0.05	0.57
NB-1C/28	27.00	28.00	1.00	100	32.84	0.09	bld	65.49	45.84	0.07	bld	0.5	bld	bld	0.05	0.11	0.02	bld	0.05	0.76
NB-1C/29	28.00	29.00	1.00	100	20.73	0.08	bld	76.03	53.22	0.08	0.26	0.64	bld	bld	0.03	bld	0.02	bld	0.07	2.05
NB-1C/30	29.00	30.00	1.00	100	23.86	0.03	bld	73.27	51.29	0.06	bld	0.47	bld	bld	0.05	0.36	0.02	bld	0.05	1.82
NB-1C/31	30.00	31.00	1.00	100	24.21	0.01	bld	73.38	51.37	0.06	bld	0.47	bld	bld	0.05	0.39	0.02	bld	0.05	1.34
NB-1C/32	31.00	32.00	1.00	100	34.87	0.02	bld	63.06	44.14	0.05	bld	0.45	bld	bld	0.04	0.23	0.02	bld	0.05	1.2
NB-1C/33	32.00	33.00	1.00	100	20.24	0.05	bld	77.26	54.08	0.08	bld	0.48	bld	bld	0.05	0.36	0.02	bld	0.05	1.4
NB-1C/34	33.00	34.00	1.00	100	15.52	0.04	bld	81.99	57.39	0.09	bld	0.5	bld	bld	0.05	0.31	0.02	bld	0.05	1.41
NB-1C/35	34.00	35.00	1.00	100	11.55	0.07	bld	86.05	60.24	0.1	bld	0.51	bld	bld	0.05	0.33	0.02	bld	0.05	1.26

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti\ O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-1C/36	35.00	36.00	1.00	100	7.91	0.02	bld	89.74	62.82	0.12	bld	0.53	bld	bld	0.06	0.39	0.02	bld	0.05	1.14
NB-1C/37	36.00	37.00	1.00	100	25.32	0.02	bld	72.46	50.72	0.08	bld	0.51	bld	bld	0.05	0.35	0.02	bld	0.05	1.13
NB-1C/38	37.00	38.00	1.00	100	16.47	0.03	bld	81.18	56.83	0.08	bld	0.49	bld	bld	0.07	0.42	0.02	bld	0.05	1.17
NB-1C/39	38.00	39.00	1.00	100	11.64	0.03	bld	85.42	59.79	0.08	bld	0.5	bld	bld	0.07	0.38	0.02	bld	0.05	1.8
NB-1C/40	39.00	40.00	1.00	100	17.81	0.04	bld	77.69	54.38	0.08	bld	0.5	bld	bld	0.06	0.3	0.02	bld	0.05	3.44
NB-1C/41	40.00	41.00	1.00	100	8.64	0.05	bld	86.69	60.68	0.11	bld	0.5	bld	bld	0.06	0.33	0.03	bld	0.05	3.52
NB-1C/42	41.00	42.00	1.00	100	12.08	0.04	bld	84.76	59.33	0.08	bld	0.49	bld	bld	0.05	0.33	0.03	bld	0.05	2.08
NB-1C/43	42.00	43.00	1.00	100	13.53	0.06	bld	83.6	58.52	0.07	bld	0.49	bld	bld	0.07	0.68	0.02	bld	0.05	1.42
NB-1C/44	43.00	44.00	1.00	100	5.5	0.01	bld	89.55	62.7	0.08	bld	0.74	bld	bld	0.12	1.03	0.03	bld	0.07	2.86
NB-1C/45	44.00	45.00	1.00	100	7.73	0.04	bld	88.34	61.84	0.08	bld	0.55	bld	bld	0.1	0.64	0.02	bld	0.05	2.44
NB-1C/46	45.00	46.00	1.00	100	3.92	0.04	bld	92.63	64.84	0.09	bld	0.5	bld	bld	0.08	0.76	0.03	bld	0.05	1.89
NB-1C/47	46.00	47.00	1.00	100	3.5	0.03	bld	93.5	65.45	0.1	bld	0.51	bld	bld	0.07	0.62	0.03	bld	0.05	1.58
NB-1C/48	47.00	48.00	1.00	100	5.3	0.02	bld	91.69	64.2	0.08	bld	0.51	bld	bld	0.07	0.73	0.02	bld	0.05	1.52
NB-1C/49	48.00	49.00	1.00	100	14.56	0.03	bld	82.59	57.81	0.06	bld	0.48	bld	bld	0.05	0.52	0.02	bld	0.05	1.63
NB-1C/50	49.00	50.00	1.00	100	31.01	0.03	bld	65.87	46.11	0.05	bld	1.01	bld	bld	0.44	0.47	0.02	bld	0.05	1.04
NB-1C/51	50.00	51.00	1.00	100	25.63	0.05	bld	71.26	49.88	0.05	bld	0.7	bld	bld	0.07	1.1	0.02	bld	0.07	1.04
NB-1C/52	51.00	52.00	1.00	100	23.01	0.03	bld	73.88	51.72	0.05	bld	0.68	bld	bld	0.07	1.04	0.02	bld	0.07	1.14
NB-1C/53	52.00	53.00	1.00	100	24.82	bld	bld	73.6	51.52	0.05	bld	0.7	bld	bld	0.06	0.66	0.02	0.01	0.07	0
NB-1C/54	53.00	54.00	1.00	100	25.12	0.03	bld	72.62	50.83	0.05	bld	0.68	bld	bld	0.06	0.64	0.02	bld	0.7	0.7
NB-1C/55	54.00	55.00	1.00	100	23.62	0.05	bld	72.36	50.65	0.04	bld	0.68	bld	bld	0.06	0.69	0.02	0.01	0.07	2.39
NB-1C/56	55.00	56.00	1.00	100	25.12	0.02	bld	72.55	50.79	0.04	bld	0.69	bld	bld	0.06	0.64	0.02	0.01	0.07	0.77
NB-1C/57	56.00	57.00	1.00	100	26.79	0.03	bld	70.78	49.55	0.04	bld	0.69	bld	bld	0.06	0.59	0.02	bld	0.07	0.92
NB-1C/58	57.00	58.00	1.00	100	27.85	0.12	bld	69.57	48.7	0.04	bld	0.69	bld	bld	0.06	0.59	0.02	0.01	0.07	0.97
NB-1C/59	58.00	59.00	1.00	100	26.39	0.02	bld	71.14	49.8	0.04	bld	0.67	bld	bld	0.07	0.65	0.02	0.01	0.07	0.91
NB-1C/60	59.00	60.00	1.00	100	29.36	0.01	bld	68.86	48.2	0.03	bld	0.67	bld	bld	0.05	0.56	0.04	bld	0.07	0.34
NB-1C/61	60.00	61.00	1.00	80	51.54	bld	bld	46.65	32.66	0.01	bld	0.41	bld	bld	0.05	0.12	0.03	bld	0.05	1.13
NB-1C/62	61.00	63.00	2.00	65	58.5	0.01	bld	40.87	28.61	0.01	bld	0.4	bld	bld	0.04	bld	0.03	bld	0.04	0.09
NB-1C/63	63.00	64.00	1.00	75	55.3	0.01	bld	43.37	30.36	0.01	bld	0.41	bld	bld	0.04	0.1	0.02	bld	0.04	0.69
NB-1C/64	64.00	65.00	1.00	80	48.98	bld	bld	49.24	34.47	0.01	bld	0.41	bld	bld	0.07	0.09	0.03	bld	0.05	1.11
NB-1C/65	65.00	67.00	2.00	35	51.7	0.02	bld	45.81	32.07	0.01	bld	0.41	bld	bld	0.06	0.04	0.02	bld	0.04	1.88
NB-1C/66	67.00	68.00	1.00	40	31.96	0.32	0.79	58.8	41.16	0.35	bld	0.43	bld	0.5	0.15	0.32	0.03	bld	0.04	6.3
NB-1C/67	68.00	70.25	2.25	40	34.05	0.06	bld	57.67	40.37	0.05	bld	0.43	bld	bld	0.26	0.23	0.02	0.01	0.04	7.17
NB-1C/68	70.25	72.05	1.80	25	36.99	0.06	bld	55.1	38.57	0.07	bld	0.43	bld	bld	0.23	0.15	0.02	0.01	0.04	6.89
NB-1C/69	72.05	73.00	0.95	100	37.56	0.39	2.56	51.93	36.35	0.04	bld	0.44	bld	1.43	0.37	0.27	0.03	0.01	0.04	4.92

BOREHOLE NO. NB-2

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-2/1	0.00	0.50	0.50	100	18.26	0.73	6.67	65.86	46.1	0.07	0.5	0.83	0.39	bld	0.08	1.15	0.08	0.01	0.06	5.3
NB-2/2	0.50	1.00	0.50	100	21.42	0.86	8.99	59.48	41.64	0.08	0.84	0.54	0.64	bld	0.09	1.02	0.09	0.01	0.06	5.87
NB-2/3	1.00	1.50	0.50	100	16.07	0.54	5.14	55.11	38.58	0.07	bld	10.49	0.08	bld	0.06	1.08	0.05	0.01	0.07	11.21
NB-2/4	1.50	2.20	0.70	100	17.23	0.48	4.87	44.91	31.44	0.04	bld	15.64	0.26	bld	0.06	1.35	bld	0.01	0.07	15.06
NB-2/5	2.20	3.00	0.80	100	21.93	0.61	6.23	54.63	38.24	0.07	bld	6.46	bld	bld	0.06	1.14	0.04	0.01	0.07	8.74
NB-2/6	3.00	4.50	1.50	100	19.8	0.74	7.69	63.22	44.25	0.09	0.44	1.15	0.26	bld	0.08	0.78	0.09	0.01	0.06	5.58
NB-2/7	4.50	5.00	0.50	100	22.19	0.67	8.34	56.18	39.33	0.07	bld	4.73	0.11	bld	0.07	0.09	0.08	0.01	0.04	7.4
NB-2/8	5.00	6.00	1.00	100	17.68	0.47	4.18	65.75	46.03	0.04	bld	5.14	0.34	bld	0.06	0.3	0.08	bld	0.04	5.92
NB-2/9	6.00	6.60	0.60	100	16.99	0.09	bld	79.67	55.77	0.03	0.14	1.08	bld	bld	0.04	0.43	0.09	bld	0.05	1.38
NB-2/10	6.60	7.15	0.55	100	6.03	0.16	0.66	90.24	63.17	0.05	0.17	0.56	bld	bld	0.05	0.42	0.12	bld	0.05	1.47
NB-2/11	7.15	8.60	1.45	100	26.12	0.14	0.39	69.38	48.57	0.03	bld	1.26	bld	bld	0.07	0.32	0.09	bld	0.05	2.14
NB-2/12	8.60	9.00	0.40	100	17.92	0.12	0.02	79.06	55.34	0.04	0.08	0.62	bld	bld	0.06	0.46	0.11	bld	0.05	1.44
NB-2/13	9.00	9.70	0.70	100	6.63	0.12	bld	90.14	63.1	0.05	0.17	0.56	bld	bld	0.06	0.66	0.13	bld	0.05	1.41
NB-2/14	9.70	10.10	0.40	100	3.94	0.11	bld	92.89	65.02	0.04	0.14	0.61	bld	bld	0.06	0.71	0.13	bld	0.05	1.31
NB-2/15	10.10	10.50	0.40	100	7.32	0.11	bld	89.24	62.47	0.04	0.22	0.68	bld	bld	0.06	0.66	0.13	bld	0.05	1.47
NB-2/16	10.50	11.15	0.65	100	6.82	0.15	0.95	89.45	62.62	0.05	0.16	0.33	bld	bld	0.06	0.46	0.13	bld	0.05	1.37
NB-2/17	11.15	11.55	0.40	100	6.82	0.13	bld	88.96	62.27	0.04	0.12	0.68	1.3	bld	0.05	0.47	0.12	bld	0.05	1.24
NB-2/18	11.55	12.00	0.45	100	7.2	0.11	bld	89.79	62.85	0.04	0.9	0.75	bld	bld	0.06	0.55	0.12	bld	0.05	1.23
NB-2/19	12.00	12.50	0.50	100	5.01	0.07	bld	92.98	65.09	0.04	0.17	0.33	bld	bld	0.03	0.46	0.13	bld	0.05	0.72
NB-2/20	12.50	12.90	0.40	100	6.17	0.09	bld	91.26	63.88	0.05	0.18	0.43	bld	bld	0.04	0.6	0.13	bld	0.05	0.98
NB-2/21	12.90	13.40	0.50	100	3.08	0.08	bld	94.73	66.31	0.05	0.23	0.27	bld	bld	0.04	0.42	0.13	bld	0.05	0.91
NB-2/22	13.40	14.00	0.60	100	4.94	0.09	bld	92.87	65.01	0.04	0.14	0.38	bld	bld	0.03	0.34	0.11	bld	0.05	0.99
NB-2/23	14.00	14.55	0.55	100	7.45	0.07	bld	90.32	63.22	0.04	0.15	0.42	bld	bld	0.04	0.33	0.11	bld	0.05	1.01
NB-2/24	14.55	15.15	0.60	100	5.71	0.06	bld	92.36	64.65	0.04	0.22	0.22	bld	bld	0.05	0.27	0.12	bld	0.05	0.88
NB-2/25	15.15	15.80	0.65	100	6.51	0.07	bld	91.36	63.95	0.04	0.17	0.25	bld	bld	0.06	0.31	0.12	bld	0.05	1.04
NB-2/26	15.80	16.45	0.65	100	3.28	0.08	bld	94.75	66.33	0.03	0.19	0.27	0.1	bld	0.04	0.24	0.12	bld	0.05	0.83
NB-2/27	16.45	17.20	0.75	100	3.69	0.06	bld	94.29	66	0.04	0.2	0.31	bld	bld	0.04	0.31	0.13	bld	0	0.92
NB-2/28	17.20	17.80	0.60	100	1.02	0.07	bld	97.32	68.12	0.04	0.16	0.19	bld	bld	0.05	0.32	0.13	bld	0.05	0.63
NB-2/29	17.80	18.70	0.90	100	2.3	0.05	bld	95.57	66.9	0.04	0.18	0.22	bld	bld	0.07	0.47	0.13	bld	0.05	0.91
NB-2/30	18.70	19.50	0.80	100	2.32	0.04	bld	95.91	67.14	0.04	0.15	0.18	bld	bld	0.05	0.37	0.13	bld	0.05	0.74
NB-2/31	19.50	20.50	1.00	100	2.72	0.05	bld	95.2	66.64	0.04	0.37	0.22	0.01	bld	0.07	0.61	0.12	bld	0.05	0.53
NB-2/32	20.50	21.75	1.25	100	2.67	0.06	bld	95.37	66.76	0.05	0.17	0.22	bld	bld	0.05	0.58	0.12	bld	0.05	0.64
NB-2/33	21.75	23.00	1.25	100	8.98	0.17	0.04	87.61	61.33	0.05	0.16	0.59	0.22	bld	0.04	0.55	0.11	bld	0.05	1.42
NB-2/34	23.00	24.00	1.00	100	14.96	0.39	3.17	72.34	50.64	0.05	bld	3.83	0.01	bld	0.06	0.35	0.09	bld	0.05	4.68
NB-2/35	24.00	25.70	1.70	100	2.23	0.08	bld	95.68	66.98	0.04	0.15	0.28	0.11	bld	0.05	0.44	0.11	bld	0.05	0.77
NB-2/36	25.70	27.25	1.55	100	5.76	0.14	bld	91.55	64.09	0.06	0.19	0.23	0.3	bld	0.07	0.48	0.12	bld	0.05	1.03

NB-2/37	27.25	28.50	1.25	100	5.47	0.11	bld	92.06	64.44	0.06	0.23	0.28	0.02	bld	0.06	0.47	0.11	bld	0.05	1.06
NB-2/38	28.50	30.00	1.50	100	3.42	0.1	bld	94.07	65.85	0.05	0.31	0.27	0.09	bld	0.05	0.54	0.11	bld	0.05	0.93
NB-2/39	30.00	31.50	1.50	100	24.53	0.73	5.44	64.17	44.92	0.08	0.34	0.26	0.56	bld	0.06	0.24	0.06	bld	0.04	3.48
NB-2/40	51.00	52.60	1.60	100	58.41	1.46	11.28	21.98	15.39	0.07	0.3	0.19	0.65	bld	0.06	b	bld	bld	0.03	5.56
NB-2/41	52.60	54.00	1.40	100	61.12	1.37	10.89	20.41	14.29	0.04	0.32	0.36	0.26	bld	0.05	b	bld	bld	0.03	5.13
NB-2/42	54.00	55.05	1.05	100	56.57	1.22	9.43	26.46	18.52	0.14	0.4	0.31	bld	bld	0.12	b	bld	bld	0.03	5.3
NB-2/43	55.05	56.50	1.45	100	62.06	1.2	9.31	20.28	14.2	0.05	0.34	0.29	0.21	bld	0.12	b	bld	bld	0.03	6.1

BOREHOLE NO. NB- 2A

Sample No.	Depth (m)		Diff. (m)	Recovery (%)	Analytical Value (%)															
	From	To			SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-2A/1	32.40	33.00	0.60	100	64.62	0.05	bld	31.94	22.36	0.01	0.31	0.28	0.19	bld	0.05	bld	bld	bld	0.03	2.51
NB-2A/2	33.00	33.75	0.75	100	64.84	0.05	bld	33.01	23.11	0.03	0.25	0.27	0.19	bld	0.04	bld	bld	bld	0.04	1.27
NB2A/3	33.75	34.20	0.45	100	57.61	0.03	bld	39.91	27.94	0.03	0.2	0.27	0.04	bld	0.08	0.36	bld	bld	0.04	1.41
NB-2A/4	34.20	35.10	0.90	100	49.62	0.13	0.67	46.02	32.21	0.05	0.19	0.3	bld	bld	0.11	0.43	bld	0.01	0.04	2.42
NB-2A/5	35.10	35.85	0.75	100	39.94	0.03	bld	48.22	33.75	0.02	0.21	0.26	bld	bld	0.03	0.2	bld	bld	0.04	11.03
NB-2A/6	35.85	36.65	0.80	100	41.98	0.08	bld	54.98	38.49	0.02	0.2	0.29	0.41	bld	0.03	0.55	bld	bld	0.04	1.4
NB-2A/7	36.65	37.40	0.75	100	29.75	0.03	0.46	64.98	45.49	0.12	0.07	1.05	0.36	bld	0.05	0.65	bld	bld	0.04	2.43
NB-2A/8	37.40	39.00	1.60	100	33.22	0.02	bld	60.81	42.57	0.06	0.22	0.31	bld	bld	0.06	0.45	bld	bld	0.04	4.79
NB-2A/9	39.00	40.00	1.00	100	5.77	0.14	0.85	88.79	62.15	0.25	0.44	0.32	bld	bld	0.06	0.72	0.04	bld	0.04	2.57
NB-2A/10	40.00	40.65	0.65	100	5.35	0.08	0.09	90.89	63.62	0.36	0.24	0.31	bld	bld	0.07	0.98	0.08	bld	0.04	1.49
NB-2A/11	40.65	41.65	1.00	100	6.48	0.04	bld	90.56	63.39	0.16	0.26	0.31	bld	bld	0.06	0.26	0.03	bld	0.04	1.78
NB-2A/12	41.65	42.65	1.00	100	1.72	0.11	bld	95.81	67.07	0.32	0.21	0.31	0.37	bld	0.06	0.22	0.08	bld	0.04	0.74
NB-2A/13	42.65	43.55	0.90	100	3.72	0.15	bld	90.18	63.13	0.12	0.18	0.3	0.16	bld	0.16	0.35	bld	bld	0.04	4.63
NB-2A/14	43.55	44.45	0.90	100	9.47	0.4	0.93	83.87	58.71	0.19	0.2	0.29	bld	bld	0.13	0.4	0.01	bld	0.04	4.06
NB-2A/15	44.45	45.55	1.10	100	4.23	0.13	bld	87.12	60.98	0.12	0.2	0.29	0.52	bld	0.17	0.28	bld	bld	0.04	6.88
NB-2A/16	45.55	46.65	1.10	100	8.96	0.1	bld	84.89	59.42	0.11	0.19	0.3	bld	bld	0.14	0.75	bld	bld	0.04	4.5
NB-2A/17	46.65	47.65	1.00	100	8.74	0.05	bld	87.1	60.97	0.18	0.22	0.3	bld	bld	0.1	0.3	0.02	bld	0.04	2.94
NB-2A/18	47.65	48.65	1.00	100	16.47	0.04	bld	80.65	56.46	0.09	0.23	0.29	0.22	bld	0.07	0.29	bld	bld	0.04	1.6
NB-2A/19	48.65	49.15	0.50	100	8.8	0.05	bld	87.84	61.49	0.18	0.23	0.3	0.08	bld	0.09	0.42	0.02	bld	0.04	1.93
NB-2A/20	49.15	50.40	1.25	100	24.97	0.05	bld	69.82	48.87	0.06	0.18	0.27	0.33	bld	0.09	0.2	bld	bld	0.04	3.98
NB-2A/21	50.40	51.65	1.25	100	30.35	0.05	bld	66.79	46.75	0.05	0.22	0.29	bld	bld	0.05	0.25	bld	bld	0.04	1.89
NB-2A/22	51.65	52.90	1.25	100	19.13	0.04	bld	77.03	53.92	0.07	0.14	0.29	bld	bld	0.07	0.26	bld	bld	0.04	2.92
NB-2A/23	52.90	53.50	0.60	100	19.5	0.03	bld	75.46	52.82	0.05	0.19	0.28	0.77	bld	0.07	0.41	bld	bld	0.04	3.18
NB-2A/24	53.50	54.20	0.70	100	24.28	0.02	bld	72.56	50.79	0.04	0.24	0.28	0.12	bld	0.04	0.46	bld	bld	0.04	1.91
NB-2A/25	54.20	55.00	0.80	100	16.28	0.05	bld	79.53	55.67	0.05	0.26	0.29	0.51	bld	0.06	0.57	bld	bld	0.04	2.35
NB-2A/26	55.00	55.80	0.80	100	20.81	0.01	bld	75.06	52.54	0.04	0.25	0.28	bld	bld	0.06	0.36	bld	bld	0.04	3.07
NB-2A/27	55.80	56.80	1.00	100	19.97	0.04	bld	75.4	52.78	0.03	0.23	0.3	0.42	bld	0.08	0.37	bld	bld	0.04	3.11
NB-2A/28	56.80	57.30	0.50	100	23.59	0.05	bld	70.64	49.45	0.09	0.26	0.3	1.22	bld	0.08	0.38	bld	bld	0.04	3.34

BOREHOLE NO. NB- 3

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-3/1	24.00	25.00	1.00	100	8.04	0.18	bld	80.21	56.14	5.82	bld	0.54	bld	bld	0.3	0.42	1.04	0.01	0	3.41
NB -3/2	25.00	26.00	1.00	100	6.77	0.2	bld	87.08	60.9	0.97	bld	0.38	bld	bld	0.2	0.68	0.26	bld	0	3.42
NB-3/3	26.00	27.00	1.00	100	13.64	0.64	5.98	70.14	49.1	2.02	bld	0.9	bld	bld	0.2	0.49	0.35	bld	0	5.63
NB-3/4	27.00	28.00	1.00	100	6.04	0.2	0.28	87.15	57	0.83	bld	0.42	bld	bld	0.2	0.62	0.21	bld	0	4.04
NB-3/5	28.00	29.00	1.00	100	10.86	0.49	4.13	77.07	53.95	1.57	bld	0.44	bld	bld	0.2	0.46	0.31	bld	0	4.46
NB-3/6	29.00	30.00	1.00	100	8.1	0.32	1.9	83.11	58.18	1.35	bld	0.44	bld	bld	0.2	0.67	0.29	bld	0	3.6
NB-3/7	30.00	31.00	1.00	100	11.1	0.48	3.93	76.1	53.3	1.9	bld	0.65	bld	bld	0.2	0.47	0.36	bld	0	4.78
NB-3/8	31.20	32.20	1.00	100	4.93	0.35	0.37	86.81	61.2	3.6	bld	0.36	bld	bld	0.1	0.54	0.66	bld	0	2.24
NB-3/9	32.75	33.75	1.00	100	1.99	0.14	bld	89.99	63	2.88	bld	0.35	bld	bld	0.2	0.51	0.56	0.01	0	3.35
NB-3/10	33.75	35.00	1.25	100	2.61	0.17	bld	88.62	62.03	2.91	bld	0.36	bld	bld	0.2	0.59	0.56	bld	0	3.92
NB-3/11	35.00	36.00	1.00	100	7.71	0.44	2.26	81.78	57.25	2.21	bld	0.43	bld	bld	0.1	0.99	0.48	0.01	0	3.51
NB-3/12	36.00	37.00	1.00	100	11.99	0.48	3.11	74.8	52.36	2.74	bld	0.49	bld	bld	0.3	0.66	0.53	0.01	0	4.89
NB-3/13	37.00	38.00	1.00	100	19.34	0.44	1.26	71.74	50.22	2.23	bld	0.34	bld	bld	0.2	1.02	0.45	0.01	0	2.97
NB-3/14	38.00	39.00	1.00	100	15.89	0.42	1.08	76.43	53.5	1.88	bld	0.35	bld	bld	0.1	0.89	0.39	0.01	0	2.48
NB-3/15	39.00	40.00	1.00	100	12.33	0.39	0.86	80.69	56.48	1.78	bld	0.36	bld	bld	0.1	1.07	0.39	bld	0	1.97
NB-3/16	40.00	41.00	1.00	100	7.01	0.22	bld	87.95	61.56	1.67	bld	0.37	bld	bld	0.1	1.02	0.4	bld	0	1.21
NB-3/17	41.00	42.00	1.00	100	6.41	0.18	bld	88.32	61.82	1.83	bld	0.36	bld	bld	0.1	0.79	0.43	bld	0	1.52
NB-3/18	42.00	43.00	1.00	100	3.23	0.14	bld	90.39	63.27	1.91	bld	0.38	bld	bld	0.1	1.56	0.44	0.01	0	1.81
NB-3/19	43.00	44.00	1.00	100	3.88	0.12	bld	90.86	63.2	1.44	bld	0.37	bld	bld	0.1	1.11	0.36	bld	0	1.75
NB-3/20	44.00	45.00	1.00	100	2.62	0.07	bld	92.52	64.76	1.07	bld	0.36	bld	bld	0	1.92	0.38	bld	0	0.96
NB-3/21	45.00	46.00	1.00	100	4.98	0.1	bld	89.74	61.81	1.71	bld	0.38	bld	bld	0.1	0.63	0.41	bld	0	1.91
NB-3/22	46.00	47.00	1.00	100	3.1	0.14	bld	90.35	63.24	2.58	bld	0.38	bld	bld	0.1	0.88	0.58	bld	0	1.85
NB-3/23	47.00	48.00	1.00	100	6.96	0.17	bld	80.98	56.69	6.98	bld	0.36	bld	bld	0.1	0.61	1.41	bld	0	2.26
NB-3/24	48.00	49.00	1.00	100	14.7	0.08	bld	74.69	52.28	4.95	bld	0.37	bld	bld	0.1	0.57	1	bld	0	3.46
NB-3/25	49.00	50.00	1.00	100	37.84	0.03	bld	56.91	39.84	1.95	bld	0.3	bld	bld	0.1	0.47	0.37	bld	0	2.03
NB-3/26	50.00	51.00	1.00	100	45.55	0.05	bld	49.3	34.51	0.15	bld	0.3	bld	bld	0.1	0.42	0.04	bld	0	4.08
NB-3/27	51.00	52.00	1.00	100	52.93	0.08	bld	42.87	30	0.2	bld	0.28	bld	bld	0	0.14	bld	bld	0	3.42
NB-3/28	53.80	54.60	0.80	100	33.53	0.24	0.62	57.74	40.42	0.09	bld	0.3	bld	0.79	0	0.37	0.03	bld	0	6.21

BOREHOLE NO. NB- 4

Sample No.	Depth (m)		Diff. (m)	Recovery (%)	Analytical Value (%)															
	From	To			SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-4/1	31.60	32.60	1.00	100	65.04	0.74	10.37	17.38	12.17	0.44	bld	0.46	bld	bld	0.02	0.1	0.02	0.01	0.02	5.37
NB-4/2	32.60	33.60	1.00	100	54.27	0.33	2.67	38.19	26.73	0.43	bld	0.35	bld	bld	0.12	0.4	0.03	0.01	0.03	3.05
NB-4/3	33.60	34.60	1.00	100	51.5	0.05	bld	45.92	32.14	0.46	bld	0.34	bld	bld	0.07	0.4	0.08	0.01	0.04	1.11
NB-4/4	34.60	35.60	1.00	100	46.56	0.15	bld	50.64	35.45	0.19	bld	0.29	bld	bld	0.07	0.4	0.04	bld	0.03	1.6
NB-4/5	35.60	36.60	1.00	100	41.7	0.03	bld	56.36	39.45	0.11	bld	0.33	bld	bld	0.03	0.6	0.02	bld	0.04	0.79
NB-4/6	36.60	37.60	1.00	100	38.72	0.01	bld	58.77	41.14	0.06	bld	0.29	bld	bld	0.05	1.4	0.04	0.01	0.04	0.62
NB-4/7	37.60	38.60	1.00	100	38.19	0.01	bld	59.74	41.82	0.04	bld	0.29	bld	bld	0.07	0.5	0.04	bld	0.04	1.04
NB-4/8	38.60	39.60	1.00	100	42.28	0.04	bld	55.19	38.63	0.13	bld	0.29	bld	bld	0.09	0.4	0.03	0.01	0.04	1.49
NB-4/9	39.60	40.60	1.00	100	53.07	0.05	bld	44.84	31.39	0.04	bld	0.31	bld	bld	0.08	0.2	0.03	bld	0.04	1.33
NB-4/10	40.60	41.60	1.00	100	41.81	0.24	bld	55.2	38.64	0.04	bld	0.31	bld	bld	0.17	0.4	0.02	bld	0.03	1.75
NB-4/11	41.60	42.60	1.00	100	42.15	0.15	bld	55.61	38.93	0.03	bld	0.29	bld	bld	0.04	0.4	0.03	bld	0.04	1.26
NB-4/12	42.60	43.60	1.00	100	41.13	bld	bld	56.67	39.67	0.17	bld	0.29	bld	bld	0.07	0.4	0.03	bld	0.04	1.17
NB-4/13	43.60	44.60	1.00	100	40.27	0.02	bld	57.67	40.37	0.07	bld	0.3	bld	bld	0.05	0.5	0.03	bld	0.04	1.03
NB-4/14	44.60	45.60	1.00	100	37.98	0.02	bld	59.71	41.8	0.19	bld	0.31	bld	bld	0.05	0.7	0.04	bld	0.04	0.93
NB-4/15	45.60	46.60	1.00	100	43.28	0.07	bld	54.45	38.12	0.03	bld	0.29	bld	bld	0.05	0.4	0.03	bld	0.04	1.34
NB-4/16	46.60	47.60	1.00	100	45.89	0.31	bld	50.99	35.69	0.03	bld	0.29	bld	0.01	0.04	0.3	0.02	bld	0.03	2.04
NB-4/17	47.60	48.60	1.00	100	46.16	0.14	bld	51.11	35.78	0.03	bld	0.29	bld	bld	0.03	0.4	0.03	bld	0.04	1.76
NB-4/18	48.60	49.60	1.00	100	48.19	0.21	bld	48.55	33.99	bld	bld	bld	0.29	bld	0.02	0.4	0.03	bld	0.03	1.93
NB-4/19	49.60	50.60	1.00	100	40.36	0.07	bld	56.22	39.35	0.45	bld	0.33	bld	bld	0.04	0.5	0.02	bld	0.04	1.93
NB-4/20	50.60	51.60	1.00	100	43.95	0.24	bld	52.59	36.81	0.29	bld	0.3	bld	0.16	0.05	0.4	0.02	bld	0.04	1.97
NB-4/21	51.60	52.60	1.00	100	36.73	0.04	bld	60.42	42.29	0.02	bld	0.31	bld	bld	0.04	0.5	0.02	bld	0.04	1.91
NB-4/22	52.60	53.60	1.00	100	30.33	0.11	bld	67.46	47.22	0.03	bld	0.3	bld	bld	0.06	0.4	0.02	bld	0.04	1.2
NB-4/23	53.60	54.60	1.00	100	41.31	0.04	bld	57.31	40.12	0.01	bld	0.29	bld	bld	0.03	0.4	0.03	bld	0.04	0.52
NB-4/24	54.60	55.60	1.00	100	31.56	0.04	bld	66.34	46.44	0.02	bld	0.29	bld	bld	0.03	0.4	0.02	bld	0.04	1.2
NB-4/25	55.60	56.60	1.00	100	32.95	0.02	bld	65.11	45.58	0.04	bld	0.37	bld	bld	0.02	0.3	0.03	bld	0.04	1.13
NB-4/26	56.60	57.60	1.00	100	38.37	bld	bld	59.41	41.59	0.02	bld	0.3	bld	bld	0.03	0.4	0.03	bld	0.04	1.36
NB-4/27	57.60	58.60	1.00	100	34.38	0.02	bld	62.83	43.98	0.02	bld	0.31	bld	bld	0.03	0.5	0.02	bld	0.04	1.87
NB-4/28	58.60	59.60	1.00	100	40.89	0.02	bld	55.24	38.67	0.02	bld	0.32	bld	bld	0.04	0.4	0.02	bld	0.04	2.99
NB-4/29	59.60	60.60	1.00	100	42.1	0.18	bld	54.23	37.96	0.02	bld	0.28	bld	0.14	0.04	0.5	0.03	bld	0.04	2.44
NB-4/30	60.60	61.60	1.00	100	39.09	0.01	bld	58.18	40.72	0.02	bld	0.3	bld	bld	0.09	0.5	0.03	bld	0.04	1.78
NB-4/31	61.60	62.60	1.00	100	39.51	0.01	bld	58.46	40.92	0.03	bld	0.03	bld	bld	0.08	0.4	0.03	bld	0.04	1.15
NB-4/32	62.60	63.60	1.00	100	38.31	0.02	bld	59.65	41.76	0.01	bld	0.29	bld	bld	0.09	0.3	0.04	bld	0.04	1.23
NB-4/33	63.60	64.60	1.00	100	51.13	0.1	bld	45.89	32.12	0.01	bld	0.28	bld	bld	0.19	0.4	0.04	0.01	0.04	1.92
NB-4/34	64.60	65.50	0.90	100	48.31	0.01	bld	49.09	34.36	0.01	bld	0.28	bld	bld	0.12	0.3	0.04	0.01	0.01	1.79

BOREHOLE NO. NB- 5

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-5/1	42.00	43.00	1.00	100	39.56	1.12	15.5	33.51	23.45	0.27	0.44	0.14	1.82	0.09	0.15		94	31	(30	7.53
NB-5/2	43.00	44.00	1.00	100	34.63	0.36	3.38	57.4	40.18	0.83	0.39	0.05	1.65	0.07	0.19		76	<1	187	2.49
NB-5/3	44.00	45.00	1.00	100	37.08	0.03	0.6	60.71	42.5	0.17	0.12	<0.01	0.43	<0.01	0.05		81	<1	204	0.65
NB-5/4	45.00	46.00	1.00	100	36.19	0.19	0.37	60.5	42.35	0.49	0.05	<0.01	0.92	<0.01	0.09		99	<1	<1	0.64
NB-5/5	46.00	47.00	1.00	100	32.1	0.07	0.54	64.19	44.93	0.68	0.24	0.14	1.26	0.02	0.22		110	16	86	1.63.
NB-5/6	47.00	48.00	1.00	100	27.08	0.01	1.46	67.37	47.16	1.16	0.14	0.12	0.22	0.03	0.29		32	27	311	2.21
NB-5/7	48.00	49.00	1.00	100	30.26	0.17	1.26	65.38	45.77	0.73	0.1	0.03	0.46	0.02	0.27		82	<1	<1	1.78
NB-5/8	49.00	50.00	1.00	100	17.36	0.17	1.7	78.26	54.76	0.39	0.29	0.02	0.05	0.02	0.27		76	14	217	2.74
NB-5/9	50.00	51.00	1.00	100	15.16	0.17	1.17	81.21	56.85	0.41	0.44	0.2	0.31	0.03	0.27		14	13	266	2.12
NB-5/10	51.00	52.00	1.00	100	13.87	0.05	0.22	80.07	56.01	2.28	<0.01	0.1	0.66	0.1	0.53		46	37	184	3.36
NB-5/11	52.00	53.00	1.00	100	29.8	0.09	0.39	64.38	45.07	1.72	0.12	0.12	1.6	0.07	0.22		57	15	<1	1.92
NB-5/12	53.00	54.00	1.00	100	7.01	0.05	0.88	87.65	61.36	0.58	0.43	0.26	1.31	0.09	0.36		16	11	214	3.55
NB-5/13	54.00	55.00	1.00	100	7	0.05	0.29	90.25	63.18	0.12	<0.01	0.03	0.88	0.02	0.24		13	24	76	2.83
NB-5/14	55.00	57.00	2.00	100	10.34	0.05	0.59	86	60.2	0.15	0.1	0.17	0.29	<0.01	0.19		18	14	133	2.26
NB-5/15	57.00	58.00	1.00	100	8.99	0.09	0.37	88.52	61.96	0.14	<0.01	0.03	0.1	<0.01	0.09		<1	<1	19	1.36
NB-5/16	58.00	59.00	1.00	100	12.6	0.07	0.85	85.57	59.9	0.2	<0.01	0.1	1.29	<0.01	0.09		40	10	31	1.05
NB-5/17	59.00	60.00	1.00	100	10.49	0.07	0.73	88.26	61.76	0.19	0.05	0.1	0.39	<0.01	0.12		<1	<1	136	1.31
NB-5/18	60.00	61.00	1.00	100	21.61	0.05	0.53	76.38	53.47	0.34	0.14	0.09	1.24	0	0.14		34	16	128	1.52
NB-5/19	61.00	62.00	1.00	100	24.09	0.1	0.54	71.49	50.04	0.83	0.07	0.05	0.39	0.02	0.14		34	16	79	1.69
NB-5/20	62.00	63.00	1.00	100	19.62	0.14	0.46	74.61	52.23	2.28	0.14	0.09	0.49	0.09	0.12		27	11	268	3.32
NB-5/21	63.00	64.00	1.00	100	16.37	0.09	0.53	74.82	52.37	3.09	0.22	0.1	0.88	0.12	0.1		12	19	276	2.6
NB-5/22	64.00	65.00	1.00	100	13.84	0.12	0.85	78.9	55.23	3.03	0.32	0.26	2.38	0.14	0.14		28	1	298	2.9
NB-5/23	65.00	66.00	1.00	100	18.19	0.61	6.51	66.74	46.72	0.36	0.29	0.15	1.48	0.09	0.19		134	20	<1	6.16
NB-5/24	66.00	67.00	1.00	100	10.47	0.12	1.38	83.85	58.7	0.85	0.31	0.19	2.82	0.14	0.19		44	2	227	2.04
NB-5/25	67.00	68.00	1.00	100	15.11	0.12	0.61	76.79	53.75	3.88	0.05	0.14	0.32	0.07	0.12		56	5	338	3.29
NB-5/26	68.00	69.00	1.00	100	17.09	0.68	8.47	66.22	46.35	0.83	0.22	0.17	0.46	0.78	0.24		145	30	252	6.34
NB-5/27	69.00	70.00	1.00	100	18.6	0.85	10.86	60.78	42.53	0.49	0.05	0.14	0.9	1.11	0.19		161	39	245	5.72

BOREHOLE NO. NB-6

Sample No.	Depth (m)		Diff. (m)	Recovery (%)	Analytical Value (%)															
	From	To			SiO_2	$Ti O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-6/1	17.00	18.00	1.00	100	15.41	0.97	8.27	71.53	50.07	0.54	bld	0.77	bld	bld	0.22	0.74	0.03	0.01	0.05	1.45
NB-6/2	18.00	19.00	1.00	100	17.87	0.94	12.42	60.12	42.08	0.33	bld	0.94	bld	bld	0.17	0.37	0.03	0.01	0.02	6.77
NB-6/3	19.00	20.00	1.00	100	3.39	0.16	bld	92.49	64.74	0.35	bld	0.76	bld	bld	0.15	0.92	0.09	0.01	0.07	1.6
NB-6/4	20.00	21.00	1.00	100	6.68	0.28	bld	87.97	61.58	0.38	bld	0.74	bld	bld	0.16	0.97	0.18	0.01	0.07	2.55
NB-6/5	21.00	22.00	1.00	100	2.36	0.06	bld	93.64	65.55	0.15	bld	0.74	bld	bld	0.1	0.94	0.04	0.01	0.08	1.87
NB-6/6	22.00	23.00	1.00	100	2.58	0.1	bld	93.43	65.4	0.13	bld	0.74	bld	bld	0.09	0.89	0.04	bld	0.07	1.92
NB-6/7	23.00	24.00	1.00	100	1.46	0.07	bld	94.98	66.49	0.1	bld	0.71	bld	bld	0.08	1.07	0.04	bld	0.07	1.4
NB-6/8	24.00	25.00	1.00	100	1.92	0.06	bld	94.61	66.23	0.17	bld	0.72	bld	bld	0.07	1	0.03	0.01	0.08	1.32
NB-6/9	25.00	26.00	1.00	100	2.69	0.04	bld	93.67	65.57	0.19	bld	0.71	bld	bld	0.1	1.09	0.03	0.01	0.08	1.38
NB-6/10	26.00	27.00	1.00	80	1.4	0.02	bld	96.01	67.21	0.13	bld	0.7	bld	bld	0.1	0.86	0.03	bld	0.07	0.67
NB-6/11	27.00	28.00	1.00	100	3.52	0.23	bld	93.23	65.26	0.19	bld	0.71	bld	bld	0.09	0.99	0.03	bld	0.07	0.93
NB-6/12	28.00	29.00	1.00	100	3.01	0.29	bld	93.41	65.39	0.17	bld	0.72	bld	bld	0.09	0.85	0.03	0.01	0.07	1.34
NB-6/13	29.00	30.00	1.00	100	1.95	0.14	bld	94.89	66.42	0.12	bld	0.71	bld	bld	0.08	1.1	0.02	bld	0.07	0.91
NB-6/14	30.00	31.00	1.00	100	1.22	0.08	bld	95.72	67	0.08	bld	0.69	bld	bld	0.05	1.07	0.03	bld	0.07	0.98
NB-6/15	31.00	32.00	1.00	100	0.45	0.01	bld	96.91	67.84	0.03	bld	0.7	bld	bld	0.03	1.07	0.03	bld	0.08	0.68
NB-6/16	32.00	33.00	1.00	100	0.22	0.22	bld	96.54	67.54	0.06	bld	0.69	bld	bld	0.04	1.58	0.03	bld	0.08	0.73
NB-6/17	33.00	34.00	1.00	100	0.24	0.05	bld	96.3	67.41	0.09	bld	0.71	bld	bld	0.03	1.64	0.03	bld	0.08	0.82
NB-6/18	34.00	35.00	1.00	100	0.23	0.03	bld	96.61	67.63	0.1	bld	0.7	bld	bld	0.04	1.44	0.02	bld	0.08	0.74
NB-6/19	35.00	36.00	1.00	100	0.07	0.02	bld	96.66	67.66	0.06	bld	0.69	bld	bld	0.04	1.86	0.03	bld	0.07	0.49
NB-6/20	36.00	37.00	1.00	100	0.25	0.01	bld	96.71	67.7	0.07	bld	0.71	bld	bld	0.04	1.51	0.03	0.01	0.08	0.57
NB-6/21	37.00	38.00	1.00	100	0.29	0.01	bld	96.07	67.25	0.07	bld	0.71	bld	bld	0.03	1.7	0.03	bld	0.08	1
NB-6/22	38.00	39.00	1.00	100	0.39	0.02	bld	96.21	67.35	0.13	bld	0.7	bld	bld	0.05	1.55	0.03	bld	0.07	0.84
NB-6/23	39.00	40.00	1.00	100	0.72	0.05	bld	96.09	67.26	0.1	bld	0.76	bld	bld	0.06	1.46	0.02	0.01	0.08	0.64
NB-6/24	40.00	41.00	1.00	100	0.56	0.01	bld	96.26	67.38	0.1	bld	0.73	bld	bld	0.06	1.49	0.03	0.01	0.08	0.66
NB-6/25	41.00	42.00	1.00	100	0.59	0.14	bld	95.85	67.1	0.1	bld	0.71	bld	bld	0.06	1.79	0.03	0.01	0.08	0.63
NB-6/26	42.00	43.00	1.00	100	3.38	0.18	bld	91.32	63.92	0.18	bld	0.72	bld	bld	0.6	1.67	0.03	bld	0.07	1.84
NB-6/27	43.00	44.00	1.00	100	0.58	0.01	bld	95.89	67.12	0.09	bld	0.73	bld	bld	0.05	1.62	0.03	bld	0.08	0.91
NB-6/28	44.00	45.00	1.00	100	7.69	0.32	1.03	85.72	60	0.22	bld	0.74	bld	bld	0.08	1.35	0.04	bld	0.07	2.73

BOREHOLE NO. NB-7

Sample No.	Depth (m)		Diff.	Recovery (%)	Analytical Value (%)															
	From	To	(m)		SiO_2	$Ti\ O_2$	Al_2O_3	Fe_2O_3	Fe(t)	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	S	Cr_2O_3	NiO	BaO	LOI
NB-7/1	7.50	8.50	1.00	100	69.49	0.21	bld	25.48	17.84	0.04	bld	0.97	0.55	bld	0.06	0.83	0.05	0.01	0.06	2.24
NB-7/2	8.50	9.50	1.00	100	38.55	bld	bld	57.45	40.22	0.05	bld	0.71	bld	bld	0.05	0.87	0.02	0.01	0.07	2.21
NB-7/3	9.50	10.50	1.00	100	9.06	0.03	bld	84.4	59.08	0.03	bld	0.74	bld	bld	0.05	1.12	0.03	bld	0.07	4.46
NB-7/4	10.50	11.75	1.25	100	13.89	0.48	3.47	75.35	52.75	0.05	bld	0.69	bld	bld	0.05	1.18	0.03	0.01	0.06	4.73
NB-7/5	11.75	13.00	1.25	100	12.31	0.42	1.31	80.71	56.5	0.05	bld	0.73	bld	bld	0.05	0.86	0.03	0.01	0.06	3.45
NB-7/6	13.00	14.00	1.00	100	3.49	0.07	bld	89.19	62.43	0.13	bld	0.7	bld	bld	0.07	0.98	0.04	bld	0.07	5.25
NB-7/7	14.00	15.00	1.00	100	8.23	0.36	0.02	86.45	60.52	0.1	bld	0.72	bld	bld	0.12	1.78	0.04	0.01	0.07	2.09
NB-7/8	15.00	17.00	2.00	80	3.38	0.11	bld	88.77	62.14	0.17	bld	0.69	bld	bld	0.07	1.66	0.04	bld	0.07	5.03
NB-7/9	17.00	18.00	1.00	100	3.44	0.06	bld	89.13	62.39	0.15	bld	0.68	bld	bld	0.07	1.68	0.04	bld	0.07	4.67
NB-7/10	18.00	19.00	1.00	100	8.11	0.39	1.42	81.01	56.71	0.51	bld	0.69	bld	bld	0.06	1.88	0.13	0.01	0.06	5.72
NB-7/11	19.00	20.00	1.00	100	8.53	0.39	1.24	81.6	57.12	0.16	bld	0.7	bld	bld	0.08	1.6	0.11	0.01	0.06	5.5
NB-7/12	20.00	21.00	1.00	100	11.94	0.54	4.36	74.92	52.44	0.07	bld	0.67	bld	bld	0.06	1.64	0.03	0.01	0.06	5.69
NB-7/13	21.00	23.00	2.00	100	7.31	0.31	bld	86.25	60.38	0.24	bld	0.69	bld	bld	0.05	0.92	0.06	0.01	0.01	4.14
NB-7/14	23.00	24.00	1.00	100	5.06	0.19	bld	87.1	60.97	1.09	bld	0.7	bld	bld	0.08	1.11	0.07	0.01	0.07	4.51
NB-7/15	24.00	25.00	1.00	100	8.22	0.34	1.05	83.12	58.18	0.39	bld	0.68	bld	bld	0.06	1.04	0.08	0.01	0.06	4.94
NB-7/16	25.00	26.00	1.00	100	9.43	0.45	1.58	80.61	56.43	0.39	bld	0.7	bld	bld	0.07	1.13	0.08	0.01	0.06	5.48
NB-7/17	26.00	27.00	1.00	100	9.96	0.51	1.88	79.8	55.86	0.39	bld	0.71	bld	bld	0.07	1.09	0.08	0.01	0.06	5.43
NB-7/18	27.00	28.50	1.50	100	10.89	0.61	3.37	77.15	54	0.19	bld	0.7	bld	bld	0.09	0.97	0.07	0.01	0.06	5.88
NB-7/19	28.50	29.50	1.00	100	12.93	0.7	4.71	74.68	52.28	0.18	bld	0.72	bld	bld	0.15	0.81	0.05	0.01	0.05	5
NB-7/20	29.50	31.00	1.50	100	41.61	0.43	1.68	50.43	35.3	0.08	bld	0.67	bld	bld	0.04	0.91	0.06	0.01	0.06	4.01
NB-7/21	31.00	32.00	1.00	100	39.05	1.09	11.56	39.12	27.38	0.24	bld	0.67	bld	bld	0.05	0.9	0.05	0.01	0.04	7.21
NB-7/22	32.00	33.00	1.00	100	48.26	1.06	11.59	30.34	21.24	0.29	bld	0.68	bld	bld	0.05	0.71	0.05	0.01	0.04	6.91
NB-7/23	33.00	34.00	1.00	100	41.57	0.99	10.83	37.72	26.4	0.31	bld	0.67	bld	bld	0.04	1.04	0.05	0.01	0.05	6.71
NB-7/24	34.00	35.50	1.50	100	48.25	0.34	0.16	44.89	31.42	0.08	bld	1.42	bld	bld	0.74	1.02	0.05	0.01	0.06	2.97
NB-7/25	35.50	37.00	1.50	100	5.7	0.06	bld	87.63	61.34	0.11	bld	0.83	bld	bld	0.1	1.18	0.03	bld	0.07	4.28
NB-7/26	37.00	39.00	2.00	100	32.13	0.13	bld	61.32	42.92	0.07	bld	0.67	bld	bld	0.14	1	0.03	0.01	0.07	4.42
NB-7/27	39.00	41.00	2.00	100	25.8	0.36	bld	67.73	47.41	0.2	bld	0.71	bld	bld	0.11	0.94	0.05	0.01	0.06	4.02
NB-7/28	41.00	42.50	1.50	50	16.09	bld	bld	76.47	53.53	0.1	bld	1.02	bld	bld	0.1	0.65	0.03	bld	0.07	5.46
NB-7/29	42.50	44.00	1.50	100	33.94	0.09	bld	57.7	40.39	1.38	bld	0.67	bld	bld	0.07	0.62	0.03	0.01	0.07	5.41
NB-7/30	44.00	45.00	1.00	100	14.34	0.05	bld	80.62	56.43	0.4	bld	0.7	bld	bld	0.08	0.6	0.02	0.01	0.07	3.09
NB-7/31	45.00	46.00	1.00	100	17.5	0.04	bld	77.76	54.43	0.22	bld	0.68	bld	bld	0.06	0.57	0.02	bld	0.07	3.07
NB-7/32	46.00	47.00	1.00	100	25.32	0.01	bld	70.42	49.29	0.08	bld	0.69	bld	bld	0.07	0.47	0.02	bld	0.07	2.84
NB-7/33	47.00	48.50	1.50	100	23.17	0.15	bld	71.15	49.81	0.11	bld	0.71	bld	bld	0.11	0.51	0.03	bld	0.07	3.98
NB-7/34	48.50	49.50	1.50	100	21.94	0.59	3.78	65.64	45.95	0.04	bld	0.69	bld	bld	0.13	0.57	0.03	0.01	0.06	6.51
NB-7/35	49.50	50.50	1.00	100	19.19	0.15	bld	75.07	52.55	0.25	bld	0.71	bld	bld	0.07	0.71	0.02	0.01	0.07	3.74
NB-7/36	50.50	51.00	0.50	100	15.08	0.12	bld	79.51	55.66	0.28	bld	0.71	bld	bld	0.09	0.95	0.03	0.01	0.07	3.14
NB-7/37	51.00	52.00	1.00	100	20.63	0.09	bld	74.62	52.23	0.15	bld	0.68	bld	bld	0.07	0.86	0.03	bld	0.07	2.79
NB-7/38	52.00	53.00	1.00	100	52.99	0.97	10.74	26.99	18.89	0.26	bld	0.65	bld	bld	0.05	0.61	0.02	0.01	0.04	6.65

ANNEXURE –VI

RESOURCE ESTIMATION FOR BOREHOLES OF NMDC BLOCK

BOREHOLE NO. NB- 1

(Bore hole Angle – 45°; Hanging Wall - 65° ; Foot Wall -70° ; L=220(m)xD50xSp.gr.3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45%	50%	55%
NB1/10	21.15	23.20	2.05	1.93	**58.24**	119.392	63591	**63591**	**63591**	**63591**
NB1/11	23.2	23.5	0.30	0.28	**48.16**	14.448	9306	**9306**	**0**	**0**
NB1/14	27	29	2.00	1.88	**57.12**	114.24	62040	**62040**	**62040**	**62040**
NB!/!5	29	31.70	2.70	2.54	**64.12**	173.124	83754	**83754**	**83754**	**83754**
NB1/16	31.70	34.10	2.40	2.26	**64.68**	155.232	74448	**74448**	**74448**	**74448**
NB1/17	34.10	36.15	2.05	1.93	**61.88**	126.854	63591	**63591**	**63591**	**63591**
NB1/28	55.95	57.00	1.05	0.99	**60.76**	63.798	32571	**32571**	**32571**	**32571**
NB1/29	57.00	58.05	1.05	0.99	**45.22**	47.481	32571	**32571**	**0**	**0**
NB1/30	58.05	61.05	3.00	2.82	**63.28**	189.84	93060	**93060**	**93060**	**93060**
NB1/31	61.05	63.15	2.10	1.97	**58.80**	123.48	65142	**65142**	**65142**	**65142**
NB1/32	63.15	63.85	0.70	0.66	**54.32**	38.024	21714	**21714**	**21714**	**0**
NB1/35	66.30	67.90	1.60	1.50	**59.08**	94.528	49632	**49632**	**49632**	**49632**
Total								**651420**	**609543**	**587829**
Grade								**57.9**	**60.23**	**60.88**
Reserve= L(m)x D x Sp.gr X TW (0.9394)										

BOREHOLE NO. NB- 1A

(Bore hole Angle -45° ; Hanging Wall -65° ; Foot Wall -70° ; L=220(m)xD50xsp.gr3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45%	50%	55%
NB1A/1	9.30	10.30	1	0.94	**56.56**	56.56	31020	**31020**	**31020**	**31020**
NB1A/2	10.30	11.30	1.00	0.94	**58.80**	58.8	31020	**31020**	**31020**	**31020**
NB1A/3	11.3	12.05	0.75	0.705	**59.92**	44.94	23265	**23265**	**23265**	**23265**
NB1A/4	12.05	15	2.95	2.773	**59.92**	176.764	91509	**91509**	**91509**	**91509**
NB1A/5	15	18	3	2.82	**61.6**	184.8	93060	**93060**	**93060**	**93060**
NB1A/6	18	20.15	2.15	2.021	**62.72**	134.848	66693	**66693**	**66693**	**66693**
NB1A/7	20.15	20.6	0.45	0.423	**62.72**	28.224	13959	**13959**	**13959**	**13959**
NB1A/8	20.6	21.6	1.00	0.94	**57.68**	57.68	31020	**31020**	**31020**	**31020**
NB1A/9	21.6	22.8	1.2	1.128	**56.56**	67.872	37224	**37224**	**37224**	**37224**
NB1A/10	22.8	23.8	1.00	0.94	**53.76**	53.76	31020	**31020**	**31020**	**0**
NB1A/11	23.8	25	1.2	1.128	**59.64**	71.568	37224	**37224**	**37224**	**37224**
NB1A/22	34.45	37.25	2.8	2.632	**54.32**	152.096	86856	**86856**	**86856**	**0**
NB1A/25	39.45	40.7	1.25	1.175	**49**	61.25	38775	**38775**	**0**	**0**
NB1A/26	40.7	42.5	1.8	1.692	**49.28**	88.704	55836	**55836**	**0**	**0**
Total								**668481**	**573870**	**455994**
Reserve= L(m)xDxSp.grxTW(0.9394)										

p.s. the 1st mineralise zone of NB-1A has taken (9.3m to 25 m) for recourse calculation)

BOREHOLE NO. NB- 1C

(Borehole Angle -60^{o} ; Hanging Wall - 50^{o} ; Foot Wall - 70^{o})

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45%	50%	55%
NB1C/1	0	1	1	0.94	**64.18**	64.18	50760	**50760**	**50760**	**50760**
NB1C/2	1	2	1	0.94	**64.72**	64.72	50760	**50760**	**50760**	**50760**
NB1C/3	2	3	1	0.94	**64.47**	64.47	50760	**50760**	**50760**	**50760**
NB1C/4	3	4	1	0.94	**64.11**	64.11	50760	**50760**	**50760**	**50760**
NB1C/5	4	5	1	0.94	**63.53**	63.53	50760	**50760**	**50760**	**50760**
NB1C/6	5	6	1	0.94	**61.08**	61.08	50760	**50760**	**50760**	**50760**
NB1C/7	6	7	1	0.94	**64.96**	64.96	50760	**50760**	**50760**	**50760**
NB1C/8	7	8	1	0.94	**64.26**	64.26	50760	**50760**	**50760**	**50760**
NB1C/9	8	9	1	0.94	**64.16**	64.16	50760	**50760**	**50760**	**50760**
NB1C/10	9	10	1	0.94	**64.93**	64.93	50760	**50760**	**50760**	**50760**
NB1C/11	10	11	1	0.94	**66.49**	66.49	50760	**50760**	**50760**	**50760**
NB1C/12	11	12	1	0.94	**64.86**	64.86	50760	**50760**	**50760**	**50760**
NB1C/13	12	13	1	0.94	**67.1**	67.1	50760	**50760**	**50760**	**50760**
NB1C/14	13	14	1	0.94	**63.22**	63.22	50760	**50760**	**50760**	**50760**
NB1C/15	14	15	1	0.94	**66.01**	66.01	50760	**50760**	**50760**	**50760**
NB1C/16	15	16	1	0.94	**62.52**	62.52	50760	**50760**	**50760**	**50760**
NB1C/17	16	17	1	0.94	**60.17**	60.17	50760	**50760**	**50760**	**50760**
NB1C/18	17	18	1	0.94	**59.49**	59.49	50760	**50760**	**50760**	**50760**
NB1C/19	18	19	1	0.94	**59.79**	59.79	50760	**50760**	**50760**	**50760**
NB1C/20	19	20	1	0.94	**52.95**	52.95	50760	**50760**	**50760**	**0**
NB1C/21	20	21	1	0.94	**47.29**	47.29	50760	**50760**	**0**	**0**
NB1C/22	21	22	1	0.94	**50.94**	50.94	50760	**50760**	**50760**	**0**
NB1C/23	22	23	1	0.94	**47.23**	47.23	50760	**50760**	**0**	**0**
NB1C/24	23	24	1	0.94	**58**	58	50760	**50760**	**50760**	**50760**
NB1C/25	24	25	1	0.94	**54.46**	54.46	50760	**50760**	**50760**	**0**
NB1C/26	25	26	1	0.94	**32.79**	32.79	50760	**0**	**0**	**0**
NB1C/27	26	27	1	0.94	**45.29**	45.29	50760	**50760**	**0**	**0**
NB1C/28	27	28	1	0.94	**45.84**	45.84	50760	**50760**	**0**	**0**
NB1C/29	28	29	1	0.94	**53.22**	53.22	50760	**50760**	**50760**	**0**
NB1C/30	29	30	1	0.94	**51.29**	51.29	50760	**50760**	**50760**	**0**
NB1C/31	30	31	1	0.94	**51.37**	51.37	50760	**50760**	**50760**	**0**
NB1C/32	31	32	1	0.94	**44.14**	44.14	50760	**0**	**0**	**0**
NB1C/33	32	33	1	0.94	**54.08**	54.08	50760	**50760**	**50760**	**0**
NB1C/34	33	34	1	0.94	**57.39**	57.39	50760	**50760**	**50760**	**50760**
NB1C/35	34	35	1	0.94	**60.24**	60.24	50760	**50760**	**50760**	**50760**
NB1C/36	35	36	1	0.94	**62.82**	62.82	50760	**50760**	**50760**	**50760**
NB1C/37	36	37	1	0.94	**50.72**	50.72	50760	**50760**	**50760**	**0**
NB1C/38	37	38	1	0.94	**56.83**	56.83	50760	**50760**	**50760**	**50760**
NB1C/39	38	39	1	0.94	**59.79**	59.79	50760	**50760**	**50760**	**50760**
NB1C/40	39	40	1	0.94	**54.38**	54.38	50760	**50760**	**50760**	**0**
NB1C/41	40	41	1	0.94	**60.68**	60.68	50760	**50760**	**50760**	**50760**
NB1C/42	41	42	1	0.94	**59.33**	59.33	50760	**50760**	**50760**	**50760**
NB1C/43	42	43	1	0.94	**58.22**	58.22	50760	**50760**	**50760**	**50760**

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45%	50%	55%
NB1C/44	43	44	1	0.94	**62.7**	62.7	50760	**50760**	**50760**	**50760**
NB1C/45	44	45	1	0.94	**61.84**	61.84	50760	**50760**	**50760**	**50760**
NB1C/46	45	46	1	0.94	**64.84**	64.84	50760	**50760**	**50760**	**50760**
NB1C/47	46	47	1	0.94	**65.45**	65.45	50760	**50760**	**50760**	**50760**
NB1C/48	47	48	1	0.94	**64.2**	64.2	50760	**50760**	**50760**	**50760**
NB1C/49	48	49	1	0.94	**57.81**	57.81	50760	**50760**	**50760**	**50760**
NB1C/50	49	50	1	0.94	**46.11**	46.11	50760	**50760**	**0**	**0**
NB1C/51	50	51	1	0.94	**49.88**	49.88	50760	**50760**	**0**	**0**
NB1C/52	51	52	1	0.94	**51.72**	51.72	50760	**50760**	**50760**	**0**
NB1C/53	52	53	1	0.94	**51.52**	51.52	50760	**50760**	**50760**	**0**
NB1C/54	53	54	1	0.94	**50.83**	50.83	50760	**50760**	**50760**	**0**
NB1C/55	54	55	1	0.94	**50.65**	50.65	50760	**50760**	**50760**	**0**
NB1C/56	55	56	1	0.94	**50.79**	50.79	50760	**50760**	**50760**	**0**
NB1C/57	56	57	1	0.94	**49.55**	49.55	50760	**50760**	**0**	**0**
NB1C/58	57	58	1	0.94	**48.7**	48.7	50760	**50760**	**0**	**0**
NB1C/59	58	59	1	0.94	**49.8**	49.8	50760	**50760**	**0**	**0**
NB1C/60	59	60	1	0.94	**48.2**	48.2	50760	**50760**	**0**	**0**
NB1C/61	60	61	1	0.94	**32.66**	32.66	50760	**0**	**0**	**0**
NB1C/62	61	63	2	1.88	**28.61**	57.22	101520	**0**	**0**	**0**
NB1C/63	63	64	1	0.94	**30.36**	30.36	50760	**0**	**0**	**0**
NB1C/64	64	65	1	0.94	**34.47**	34.47	50760	**0**	**0**	**0**
NB1C/65	65	67	2	1.88	**32.07**	64.14	101520	**0**	**0**	**0**
NB1C/66	67	68	1	0.94	**41.16**	41.16	50760	**0**	**0**	**0**
NB1C/67	68	70.25	2.25	2.115	**40.37**	90.8325	114210	**0**	**0**	**0**
NB1C/68	70.25	72.05	1.8	1.692	**38.57**	69.426	91368	**0**	**0**	**0**
NB1C/69	72.05	73	0.95	95	**36.35**	34.5325	5130000	**0**	**0**	**0**
Total								**2944080**	**2436480**	**1725840**
Grade								**57.36**	**59.36**	**62.36**

Reserve=L(m)xDxSp.grxTW(0.77)

BOREHOLE NO. NB- 2

(Bore hole Angle -60°; Hanging Wall-70° ; Foot Wall -50° ; L=250(m)xD50xSp.gr3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB2/1	0	0.5	0.5	0.385	**46.1**	23.05	14437.5	**14437.5**	**0**	**0**
NB2/2	0.5	1	0.5	0.385	**41.64**	20.82	14437.5	**0**	**0**	**0**
NB2/3	1	1.5	0.5	0.385	**38.58**	19.29	14437.5	**0**	**0**	**0**
NB2/4	1.5	2.2	0.7	0.539	**31.44**	22.008	20212.5	**0**	**0**	**0**
NB2/5	2.2	3	0.8	0.616	**38.24**	30.592	23100	**0**	**0**	**0**
NB2/6	3	4.5	1.5	1.155	**44.25**	66.375	43312.5	**0**	**0**	**0**
NB2/7	4.5	5	0.5	0.385	**39.33**	19.665	14437.5	**0**	**0**	**0**
NB2/8	5	6	1	0.77	**46.03**	46.03	28875	**28875**	**0**	**0**
NB2/9	6	6.6	0.6	0.462	**55.07**	33.042	17325	**17325**	**17325**	**17325**
NB2/10	6.6	7.15	0.55	0.4235	**63.17**	34.7435	15881.25	**15881.25**	**15881.25**	**15881.25**
NB2/11	7.15	8.6	1.45	1.1165	**48.57**	70.4265	41868.75	**41868.75**	**0**	**0**
NB2/12	8.6	9	0.4	0.308	**55.34**	22.136	11550	**11550**	**11550**	**11550**
NB2/13	9	9.7	0.7	0.539	**63.1**	44.17	20212.5	**20212.5**	**20212.5**	**20212.5**
NB2/14	9.7	10.1	0.4	0.308	**65.02**	26.008	11550	**11550**	**11550**	**11550**
NB2/15	10.1	10.5	0.4	0.308	**62.47**	24.988	11550	**11550**	**11550**	**11550**
NB2/16	10.5	11.15	0.65	0.5005	**62.62**	40.703	18768.75	**18768.75**	**18768.75**	**18768.75**
NB2/17	11.15	11.55	0.4	0.308	**62.27**	24.908	11550	**11550**	**11550**	**11550**
NB2/18	11.55	12	0.45	0.3465	**62.85**	28.2825	12993.75	**12993.75**	**12993.75**	**12993.75**
NB2/19	12	12.5	0.5	0.385	**65.09**	32.545	14437.5	**14437.5**	**14437.5**	**14437.5**
NB2/20	12.5	12.9	0.4	0.308	**63.88**	25.552	11550	**11550**	**11550**	**11550**
NB2/21	12.9	13.4	0.5	0.385	**66.31**	33.155	14437.5	**14437.5**	**14437.5**	**14437.5**
NB2/22	13.4	14	0.6	0.462	**65.01**	39.006	17325	**17325**	**17325**	**17325**
NB2/23	14	14.55	0.55	0.4235	**63.22**	34.771	15881.25	**15881.25**	**15881.25**	**15881.25**
NB2/24	14.55	15.15	0.6	0.462	**64.65**	38.79	17325	**17325**	**17325**	**17325**
NB2/25	15.15	15.8	0.65	0.5005	**63.95**	41.5675	18768.75	**18768.75**	**18768.75**	**18768.75**
NB2/26	15.8	16.45	0.65	0.5005	**66.33**	43.1145	18768.75	**18768.75**	**18768.75**	**18768.75**
NB2/27	16.45	17.2	0.75	0.5775	**66**	49.5	21656.25	**21656.25**	**21656.25**	**21656.25**
NB2/28	17.2	17.8	0.6	0.462	**68.12**	40.872	17325	**17325**	**17325**	**17325**
NB2/29	17.8	18.7	0.9	0.693	**66.9**	60.21	25987.5	**25987.5**	**25987.5**	**25987.5**
NB2/30	18.7	19.5	0.8	0.616	**67.14**	53.712	23100	**23100**	**23100**	**23100**
NB2/31	19.5	20.5	1	0.77	**66.64**	66.64	28875	**28875**	**28875**	**28875**
NB2/32	20.5	21.75	1.25	0.9625	**66.76**	83.45	36093.75	**36093.75**	**36093.75**	**36093.75**
NB2/33	21.75	23	1.25	0.9625	**61.33**	76.6625	36093.75	**36093.75**	**36093.75**	**36093.75**
NB2/34	23	24	1	0.77	**50.64**	50.64	28875	**28875**	**28875**	**0**
NB2/35	24	25.7	1.7	1.309	**66.98**	113.866	49087.5	**49087.5**	**49087.5**	**49087.5**
NB2/36	25.7	27.25	1.55	1.1935	**64.09**	99.3395	44756.25	**44756.25**	**44756.25**	**44756.25**
NB2/37	27.25	28.5	1.25	0.9625	**64.44**	80.55	36093.75	**36093.75**	**36093.75**	**36093.75**
NB2/38	28.5	30	1.5	1.155	**65.85**	98.775	43312.5	**43312.5**	**43312.5**	**43312.5**
NB2/39	30	31.5	1.5	1.155	**44.92**	67.38	43312.5	**0**	**0**	**0**
NB2/40	51	52.6	1.6	1.232	**15.39**	24.624	46200	**0**	**0**	**0**
NB2/41	52.6	54	1.6	1.232	**14.29**	22.864	46200	**0**	**0**	**0**
NB2/42	54	55.05	1.05	0.8085	**18.52**	19.446	30318.75	**0**	**0**	**0**
NB2/43	55.05	56.5	1.45	1.1165	**14.2**	20.59	41868.75	**0**	**0**	**0**
Total								**736312.5**	**651131.25**	**622256.25**
Grade								**62.05**	**63.65**	**64.12**
*Reserve= L(m)xDxsp.grxTW(0.766)										

BOREHOLE NO. NB- 2A

(Bore hole Angle -60^{o} ; Hanging Wall -70^{o} ; Foot Wall -50^{o} L=240(m)xD50xSp.gr.3.)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB2A/1	32.4	33	0.6	0.462	**22.36**	13.416	16632	**0**	**0**	**0**
NB2A/2	33	33.75	0.75	0.5775	**23.11**	17.3325	20790	**0**	**0**	**0**
NB2A/3	33.75	34.2	0.45	0.3465	**27.94**	12.573	12474	**0**	**0**	**0**
NB2A/4	34.2	35.1	0.9	0.693	**32.21**	28.989	24948	**0**	**0**	**0**
NB2A/5	35.1	35.85	0.75	0.5775	**33.75**	25.3125	20790	**0**	**0**	**0**
NB2A/6	35.85	36.65	0.8	0.616	**38.49**	30.792	22176	**0**	**0**	**0**
NB2A/7	36.65	37.4	0.75	0.5775	**45.49**	34.1175	20790	**0**	**0**	**0**
NB2A/8	37.4	39	1.6	1.232	**42.57**	68.112	44352	**0**	**0**	**0**
NB2A/9	39	40	1	0.77	**62.15**	62.15	27720	**27720**	**27720**	**27720**
NB2A/10	40	40.65	0.65	0.5005	**63.62**	41.353	18018	**18018**	**18018**	**18018**
NB2A/11	40.65	41.65	1	0.77	**63.39**	63.39	27720	**27720**	**27720**	**27720**
NB2A/12	41.65	42.65	1	0.77	**67.07**	67.07	27720	**27720**	**27720**	**27720**
NB2A/13	42.65	43.55	0.9	0.693	**63.13**	56.817	24948	**24948**	**24948**	**24948**
NB2A/14	43.55	44.45	0.9	0.693	**58.71**	52.839	24948	**24948**	**24948**	**24948**
NB2A/15	44.45	45.55	1.1	0.847	**60.98**	67.078	30492	**30492**	**30492**	**30492**
NB2A/16	45.55	46.65	1.1	0.847	**59.42**	65.362	30492	**30492**	**30492**	**30492**
NB2A/17	46.65	47.65	1	0.77	**60.97**	60.97	27720	**27720**	**27720**	**27720**
NB2A/18	47.65	48.65	1	0.77	**56.46**	56.46	27720	**27720**	**27720**	**27720**
NB2A/19	48.65	49.15	0.5	0.385	**61.49**	30.745	13860	**13860**	**13860**	**13860**
NB2A/20	49.15	50.4	1.25	0.9625	**48.87**	61.0875	34650	**34650**	**0**	**0**
NB2A/21	50.4	51.65	1.25	0.9625	**46.75**	58.4375	34650	**34650**	**0**	**0**
NB2A/22	51.65	52.9	1.25	0.9625	**53.92**	67.4	34650	**34650**	**34650**	**0**
NB2A/23	52.9	53.5	0.6	0.462	**52.82**	31.692	16632	**16632**	**16632**	**0**
NB2A/24	53.5	54.2	0.7	0.539	**50.79**	35.553	19404	**19404**	**19404**	**0**
NB2A/25	54.2	55	0.8	0.616	**55.67**	44.536	22176	**22176**	**22176**	**22176**
NB2A/26	55	55.8	0.8	0.616	**52.54**	42.032	22176	**22176**	**22176**	**0**
NB2A/27	55.8	56.8	1	0.77	**52.78**	52.78	27720	**27720**	**27720**	**0**
NB2A/28	56.8	57.3	0.5	0.385	**49.45**	24.725	13860	**13860**	**0**	**0**
Total								**507276**	**424116**	**303534**
Grade									**58.58**	**61.09**
32.34 Value below 45% Cut Off										
*Reserve= LxDxSp.grXTW0.8660										

BOREHOLE NO. NB- 3

(Bore hole Angle -60 ^{o} ; Hanging Wall - 60 ^{o}; Foot Wall - 60 ^{o} : L=100(m)*50*sp.gr.3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB3/1	24	25	1	0.87	56.14	**56.14**	13050	**13050**	**13050**	**13050**
NB3/2	25	26	1	0.87	60.9	**60.90**	13050	**13050**	**13050**	**13050**
NB3/3	26	27	1	0.87	49.1	**49.10**	13050	**13050**		
NB3/4	27	28	1	0.87	57	**57.00**	13050	**13050**	**13050**	**13050**
NB3/5	28	29	1	0.87	53.95	**53.95**	13050	**13050**	**13050**	
NB3/6	29	30	1	0.87	58.18	**58.18**	13050	**13050**	**13050**	**13050**
NB3/7	30	31	1	0.87	53.3	**53.30**	13050	**13050**	**13050**	
NB3/8	31.2	32.2	1	0.87	61.2	**61.20**	13050	**13050**	**13050**	**13050**
NB3/9	32.75	33.75	1	0.87	63	**63.00**	13050	**13050**	**13050**	**13050**
NB3/10	33.75	35	1.25	1.09	62.03	**77.54**	16313	**16312.5**	**16312.5**	**16312.5**
NB3/11	35	36	1	0.87	57.25	**57.25**	13050	**13050**	**13050**	**13050**
NB3/12	36	37	1	0.87	52.36	**52.36**	13050	**13050**	**13050**	
NB3/13	37	38	1	0.87	50.22	**50.22**	13050	**13050**	**13050**	
NB3/14	38	39	1	0.87	53.5	**53.50**	13050	**13050**	**13050**	
NB3/15	39	40	1	0.87	56.48	**56.48**	13050	**13050**	**13050**	**13050**
NB3/16	40	41	1	0.87	61.56	**61.56**	13050	**13050**	**13050**	**13050**
NB3/17	41	42	1	0.87	61.82	**61.82**	13050	**13050**	**13050**	**13050**
NB3/18	42	43	1	0.87	63.27	**63.27**	13050	**13050**	**13050**	**13050**
NB3/19	43	44	1	0.87	63.6	**63.60**	13050	**13050**	**13050**	**13050**
NB3/20	44	45	1	0.87	64.76	**64.76**	13050	**13050**	**13050**	**13050**
NB3/21	45	46	1	0.87	61.81	**61.81**	13050	**13050**	**13050**	**13050**
NB3/22	46	47	1	0.87	63.24	**63.24**	13050	**13050**	**13050**	**13050**
NB3/23	47	48	1	0.87	56.69	**56.69**	13050	**13050**	**13050**	**13050**
NB3/24	48	49	1	0.87	52.28	**52.28**	13050	**13050**	**13050**	
NB3/25	49	50	1	0.87	39.84	**39.84**	13050			
NB3/26	50	51	1	0.87	34.51	**34.51**	13050			
NB3/27	51	52	1	0.87	30	**30.00**	13050			
NB3/28	53.8	54.6	0.8	0.70	40.42	**32.34**	10440			
Total								**316463**	**78300**	**225113**
Grade								**58.07**	**58.46**	**60.53**
Reserve-LxDxSp.Gr xTW (0.8660)										

BOREHOLE NO. NB- 4

(Bore hole Angle - 60°; Hanging Wall -60° ; Foot Wall -60° L=180(m)*50*sp.gr.3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB4/1	31.6	32.6	1	0.87	**12.17**	12.17	23490			
NB4/2	32.6	33.6	1	0.87	**26.73**	26.73	23490			
NB4/3	33.6	34.6	1	0.87	**32.14**	32.14	23490			
NB4/4	34.6	35.6	1	0.87	**35.45**	35.45	23490			
NB4/5	35.6	36.6	1	0.87	**39.45**	39.45	23490			
NB4/6	36.6	37.6	1	0.87	**41.14**	41.14	23490			
NB4/7	37.6	38.6	1	0.87	**41.82**	41.82	23490			
NB4/8	38.6	39.6	1	0.87	**38.63**	38.63	23490			
NB4/9	39.6	40.6	1	0.87	**31.39**	31.39	23490			
NB4/10	40.6	41.6	1	0.87	**38.64**	38.64	23490			
NB4/11	41.6	42.6	1	0.87	**38.93**	38.93	23490			
NB4/12	42.6	43.6	1	0.87	**39.67**	39.67	23490			
NB4/13	43.6	44.6	1	0.87	**40.37**	40.37	23490			
NB4/14	44.6	45.6	1	0.87	**41.8**	41.8	23490			
NB4/15	45.6	46.6	1	0.87	**38.12**	38.12	23490			
NB4/16	46.6	47.6	1	0.87	**35.69**	35.69	23490			
NB4/17	47.6	48.6	1	0.87	**35.78**	35.78	23490			
NB4/18	48.6	49.6	1	0.87	**33.99**	33.99	23490			
NB4/19	49.6	50.6	1	0.87	**39.35**	39.35	23490			
NB4/20	50.6	51.6	1	0.87	**36.81**	36.81	23490			
NB4/21	51.6	52.6	1	0.87	**42.29**	42.29	23490			
NB4/22	52.6	53.6	1	0.87	**47.22**	47.22	23490	**23490**		
NB4/23	53.6	54.6	1	0.87	**40.12**	40.12	23490			
NB4/24	54.6	55.6	1	0.87	**46.44**	46.44	23490	**23490**		
NB4/25	55.6	56.6	1	0.87	**45.58**	45.58	23490	**23490**		
NB4/26	56.6	57.6	1	0.87	**41.59**	41.59	23490			
NB4/27	57.6	58.6	1	0.87	**43.98**	43.98	23490			
NB4/28	58.6	59.6	1	0.87	**38.67**	38.67	23490			
NB4/29	59.6	60.6	1	0.87	**37.96**	37.96	23490			
NB4/30	60.6	61.6	1	0.87	**40.72**	40.72	23490			
NB4/31	61.6	62.6	1	0.87	**40.92**	40.92	23490			
NB4/32	62.6	63.6	1	0.87	**41.76**	41.76	23490			
NB4/33	63.6	64.6	1	0.87	**32.12**	32.12	23490			
NB4/34	64.6	65.6	1	0.87	**34.3**	34.3	23490			
Total								**70470**		
Grade								**46.41**		
Reserve-LxDxSp.Gr xTW (0.8660)										

BOREHOLE NO. NB- 5

(Bore hole Angle -60^{o} ; Hanging Wall -50^{o} ; Foot Wall -70^{o}; L=220mxD50mxSp.gr.3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB5/1	42	43	1	0.94	23.45	**23.45**	31020	**0**	**0**	**0**
NB5/2	43	44	1	0.94	40.18	**40.18**	31020	**0**	**0**	**0**
NB5/3	44	45	1	0.94	42.5	**42.5**	31020	**0**	**0**	**0**
NB5/4	45	46	1	0.94	42.35	**42.35**	31020	**0**	**0**	**0**
NB5/5	46	47	1	0.94	44.93	**44.93**	31020	**0**	**0**	**0**
NB5/6	47	48	1	0.94	47.16	**47.16**	31020	**31020**	**0**	**0**
NB5/7	48	49	1	0.94	45.77	**45.77**	31020	**31020**	**0**	**0**
NB5/8	49	50	1	0.94	54.76	54.76	31020	**31020**	**31020**	**0**
NB5/9	50	0	1	0.94	56.85	**56.85**	31020	**31020**	**31020**	**31020**
NB5/10	51	52	1	0.94	56.01	**56.01**	31020	**31020**	**31020**	**31020**
NB5/11	52	53	1	0.94	45.07	**45.07**	31020	**31020**	**0**	**0**
NB5/12	53	54	1	0.94	61.36	**61.36**	31020	**31020**	**31020**	**31020**
NB5/13	54	55	1	0.94	63.18	**63.18**	31020	**31020**	**31020**	**31020**
NB5/14	55	57	2	1.88	60.2	**120.4**	62040	**62040**	**62040**	**62040**
NB5/15	57	58	1	0.94	61.96	**61.96**	31020	**31020**	**31020**	**31020**
NB5/16	58	59	1	0.94	59.9	**59.9**	31020	**31020**	**31020**	**31020**
NB5/17	59	60	1	0.94	61.76	**61.76**	31020	**31020**	**31020**	**31020**
NB5/18	60	61	1	0.94	53.47	53.47	31020	**31020**	**31020**	**0**
NB5/19	61	62	1	0.94	50.04	50.04	31020	**31020**	**31020**	**0**
NB5/20	62	63	1	0.94	52.23	52.23	31020	**31020**	**31020**	**0**
NB5/21	63	64	1	0.94	52.37	52.37	31020	**31020**	**31020**	**0**
NB5/22	64	65	1	0.94	55.23	**55.23**	31020	**31020**	**31020**	**31020**
NB5/23	65	66	1	0.94	46.72	**46.72**	31020	**31020**	**0**	**0**
NB5/24	66	67	1	0.94	58.7	**58.7**	31020	**31020**	**31020**	**31020**
NB5/25	67	68	1	0.94	53.75	53.75	31020	**31020**	**31020**	**0**
NB5/26	68	69	1	0.94	46.35	**46.35**	31020	**31020**	**0**	**0**
NB5/27	69	70	1	0.94	42.53	**42.53**	31020	**0**	**0**	**0**
Total								**682440**	**527340**	**341220**
Grade								**51.95**	**53.63**	
42.53 Below 45% CutOff										
*Reserve =LXXSP.GRXTW(0.9394)										

BOREHOLE NO. NB- 6

(BH:NB- 6 Bore hole Angle -60 ^{o} ; Hanging Wall - 50 ^{o} ; Foot Wall - 70 ^{o} L=200(m)*50*sp.gr.3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45	50	55
NB6/1	17	18	1	0.9397	50.07	50.07	40876.95	**40876.95**	**40876.95**	**0**
NB6/2	18	19	1	0.9397	42.08	**42.08**	40876.95	**0**	**0**	**0**
NB6/3	19	20	1	0.9397	64.74	64.74	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/4	20	21	1	0.9397	61.58	61.58	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/5	21	22	1	0.9397	65.55	65.55	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/6	22	23	1	0.9397	65.4	65.4	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/7	23	24	1	0.9397	66.49	66.49	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/8	24	25	1	0.9397	66.23	66.23	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/9	25	26	1	0.9397	65.57	65.57	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/10	26	27	1	0.9397	67.21	67.21	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/11	27	28	1	0.9397	65.26	65.26	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/12	28	29	1	0.9397	65.39	65.39	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/13	29	30	1	0.9397	66.42	66.42	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/14	30	31	1	0.9397	67	67	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/15	31	32	1	0.9397	67.84	67.84	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/16	32	33	1	0.9397	67.58	67.58	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/17	33	34	1	0.9397	67.41	67.41	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/18	34	35	1	0.9397	67.63	67.63	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/19	35	36	1	0.9397	67.66	67.66	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/20	36	37	1	0.9397	67.7	67.7	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/21	37	38	1	0.9397	67.25	67.25	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/22	38	39	1	0.9397	67.35	67.35	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/23	39	40	1	0.9397	67.26	67.26	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/24	40	41	1	0.9397	67.38	67.38	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/25	41	42	1	0.9397	67.1	67.1	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/26	42	43	1	0.9397	63.92	63.92	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/27	43	44	1	0.9397	67.12	67.12	40876.95	**40876.95**	**40876.95**	**40876.95**
NB6/28	44	45	1	0.9397	60	60	40876.95	**40876.95**	**40876.95**	**40876.95**
Total							**1144555**	**1103677.7**	**1103677.7**	**1062800.7**
Grade								**65.56**	**65.56**	**66.16**
42.08 Below 45% Cut-off.										
Reserve=LxDxSp.GrX TW(0.9394)										

BOREHOLE NO. NB- 7

(Bore hole Angle -45 ^{o} ; Hanging Wall - 65 ^{o} ; Foot Wall -70 ^{o} ; L=150mxD50xSp.gr3)

Sam No	Length (m)		Width	True Width	Fe(t) (%)	L*A	Reserve (Tonnes)	Cut Off Grade (%)		
	From	To						45%	50%	55%
NB7/1	7.5	8.5	0.5	0.47	**17.84**	8.92	10575	**0**	**0**	**0**
NB7/2	8.5	9.5	1	0.94	**40.22**	40.22	21150	**0**	**0**	**0**
NB7/3	9.5	10.5	1	0.94	**59.08**	59.08	21150	**21150**	**21150**	**21150**
NB7/4	10.5	11.75	1.25	1.175	**52.75**	65.9375	26437.5	**26437.5**	**26437.5**	**0**
NB7/5	11.75	13	1.25	1.468	**56.5**	70.625	33046.9	**33046.9**	**33046.9**	**33046.9**
NB7/6	13	14	1	0.94	**62.43**	62.43	21150	**21150**	**21150**	**21150**
NB7/7	14	15	1	0.94	**60.52**	60.52	21150	**21150**	**21150**	**21150**
NB7/8	15	17	2	1.88	**62.14**	124.28	42300	**42300**	**42300**	**42300**
NB7/9	17	18	1	0.94	**62.39**	62.39	21150	**21150**	**21150**	**21150**
NB7/10	18	19	1	0.94	**56.71**	56.71	21150	**21150**	**21150**	**21150**
NB7/11	19	20	1	0.94	**57.12**	57.12	21150	**21150**	**21150**	**21150**
NB7/12	20	21	1	0.94	**52.44**	52.44	21150	**21150**	**21150**	**0**
NB7/13	21	23	2	1.88	**60.38**	120.76	42300	**42300**	**42300**	**42300**
NB7/14	23	24	1	0.94	**60.97**	60.97	21150	**21150**	**21150**	**21150**
NB7/15	24	25	1	0.94	**58.18**	58.18	21150	**21150**	**21150**	**21150**
NB7/16	25	26	1	0.94	**56.43**	56.43	21150	**21150**	**21150**	**21150**
NB7/17	26	27	1	0.94	**55.86**	55.86	21150	**21150**	**21150**	**21150**
NB7/18	27	28.5	1.5	1.43	**54**	81	32175	**32175**	**32175**	**0**
NB7/19	28.5	29.5	1	0.94	**52.28**	52.28	21150	**21150**	**21150**	**0**
NB7/20	29.5	31	1.5	1.43	**35.3**	52.95	32175	**0**	**0**	**0**
NB7/21	31	32	1	0.94	**27.38**	27.38	21150	**0**	**0**	**0**
NB7/22	32	33	1	0.94	**21.24**	21.24	21150	**0**	**0**	**0**
NB7/23	33	34	1	0.94	**26.4**	26.4	21150	**0**	**0**	**0**
NB7/24	34	35.5	1.5	1.43	**31.42**	47.13	32175	**0**	**0**	**0**
NB7/25	35.5	37	1.5	1.43	**61.34**	92.01	32175	**32175**	**32175**	**32175**
NB7/26	37	39	2	1.88	**42.92**	85.84	42300	**0**	**0**	**0**
NB7/27	39	41	2	1.88	**47.41**	94.82	42300	**42300**	**0**	**0**
NB7/28	41	42.5	1.5	1.43	**53.53**	80.295	32175	**32175**	**32175**	**0**
NB7/29	42.5	44	1.5	1.43	**40.39**	60.585	32175	**0**	**0**	**0**
NB7/30	44	45	1	0.94	**56.43**	56.43	21150	**21150**	**21150**	**21150**
NB7/31	45	46	1	0.94	**54.43**	54.43	21150	**21150**	**21150**	**0**
NB7/32	46	47	1	1.43	**49.29**	49.29	32175	**32175**	**0**	**0**
NB7/33	47	48.5	1.5	0.94	**49.81**	74.715	21150	**21150**	**0**	**0**
NB7/34	48.5	49.5	1	0.94	**45.95**	45.95	21150	**21150**	**0**	**0**
NB7/35	49.5	50.5	1	0.94	**52.55**	52.55	21150	**21150**	**21150**	**0**
NB7/36	50.5	51	0.5	0.47	**55.66**	27.83	10575	**10575**	**10575**	**10575**
NB7/37	51	52	1	0.94	**52.23**	52.23	21150	**21150**	**21150**	**0**
NB7/38	52	53	1	0.94	**18.89**	18.89	21150	**0**	**0**	**0**
Total								**706359.9**	**589584.9**	**393046.9**
Grade								**55.66**	**56.95**	**58.88**
Reserve= L(m)xDxsp.grxTW(0.9394)										